

<400> 2508

```

Pro Gly Cys Cys Arg Tyr Leu Lys Glu Phe Arg Thr Glu Gln Cys Pro
 1           5           10           15
Leu Phe Ser Gln His Lys Cys Ala Gln His Arg Pro Phe Thr Cys Phe
 20           25           30
His Trp His Phe Leu Asn Gln Arg Arg Arg Pro Leu Arg Arg Arg
 35           40           45
Asp Gly Thr Phe Asn Tyr Ser Pro Asp Val Tyr Cys Ser Lys Tyr Asn
 50           55           60
Glu Ala Thr Gly Val Cys Pro Asp Gly Asp Glu Cys Pro Tyr Leu His
 65           70           75           80
Arg Thr Thr Gly Asp Thr Glu Arg Lys Tyr His Leu Arg Tyr Tyr Lys
 85           90           95
Thr Gly Thr Cys Ile His Glu Thr Asp Ala Arg Gly His Cys Val Lys
100           105           110
Asn Gly Leu His Cys Ala Phe Ala His Gly Pro His Asp Leu Arg Ser
115           120           125
Pro Val Tyr Asp Ile Arg Glu Leu Gln Ala Met Glu Ala Leu Gln Asn
130           135           140
Gly Gln Thr Thr Val Glu Gly Ser Ile Glu Gly Gln Ser Ala Gly Ala
145           150           155           160
Ala Ser His Ala Met Ile Glu Lys Ile Leu Ser Glu Glu Pro Arg Trp
165           170           175
Gln Glu Thr Ala Tyr Val Leu Gly Asn Tyr Lys Thr Glu Pro Cys Lys
180           185           190
Lys Pro Pro Arg Leu Cys Arg Gln Gly Tyr Ala Cys Pro Tyr Tyr His
195           200           205
Asn Ser Lys Asp Arg Arg Ser Pro Arg Lys His Lys Tyr Arg Ser
210           215           220
Ser Pro Cys Pro Asn Val Lys His Gly Asp Glu Trp Gly Asp Pro Gly
225           230           235           240
Lys Cys Glu Asn Gly Asp Ala Cys Gln Tyr Cys His Thr Arg Thr Glu
245           250           255
Gln Gln Phe His Pro Glu Ile Tyr Lys Ser Thr Lys Cys Asn Gly Arg
260           265           270
Gly Gly Gly Val Arg Glu
275

```

<210> 2509

<211> 348

<212> DNA

<213> Homo sapiens

<400> 2509

```

gccgccttg acctgggccc gccgatggct ccacggcaag gtccaatact ccgtgcgctt
 60
gtggcgcttg acttcgtcga tgcccgcgag gttttgctgc ccgcgaccat tggactggac
120
gttcataaac ggggtggagcc cgcaaaacc gaaactcaac caatccttgg ggaagtgtgga
180
cggcagggtt cagagggcaa acacgttgac cagtttcgca ccgacaccac cgaccacggc
240
caccgctccc agcggaaatc cgtagactta gcgccagggt tggttaaggcg ttagcgggtc
300

```

gtaacgacgg gtgacctoga actcggggct tcaaagtctt ctgctgtg
348

<210> 2510
<211> 108
<212> PRT
<213> Homo sapiens

<400> 2510
Met Ala Pro Arg Gln Gly Pro Ile Leu Arg Ala Leu Val Ala Leu Asp
1 5 10 15
Phe Val Asp Ala Arg Glu Val Leu Leu Pro Ala Thr Ile Gly Leu Asp
20 25 30
Val His Glu Arg Val Glu Pro Gly Lys Thr Glu Thr Gln Pro Ile Leu
35 40 45
Gly Asp Ala Gly Arg Gln Val Ala Glu Gly Lys His Val Asp His Val
50 55 60
Arg Thr Asp Thr Thr Asp His Gly His Arg Ser Gln Arg Asn Leu Val
65 70 75 80
Asp Leu Ala Pro Gly Leu Val Arg Arg Val Ala Val Val Thr Thr Gly
85 90 95
Asp Leu Glu Leu Gly Ala Ser Lys Ser Ser Ala Val
100 105

<210> 2511
<211> 663
<212> DNA
<213> Homo sapiens

<400> 2511
nnacgcgtgt gggaccatat caggggagcc cgatggttct caggtaaggc ccgggggtgt
60
tccctgacta ggctgctgtc gttggctccc gtcgtcaacg agcaagatct gcaagtgtc
120
cctgtcatcg cacacgtcgg ttatccgcag gccgcgcagc agtattacca gttgctttta
180
gcattacgcc caggacgcgt tgctggcctg gcggagatcg tcgtcaacgg tcaacctttt
240
accgtcactg acgccactga ggatgaacta gctctcactg cttgggctcg tatcctcctc
300
gagggaactc ccacgcgcat ggatggatcg tggcagctgc atcgccgtcg agcgccctc
360
gagccagtgc gggtcgctaa gcgcttcggt ggtgagcaat cgaacacctc gatcatgggt
420
ggcgacgcca tcatcatcaa aatgttccgc cgcctggagc ccggcgacaa ccttgacatc
480
accgtgcata gcgccctcaa cgatgccggg atctcatcgg tggccacatt gtagcgcttt
540
atgtccggac agatccccgc tgaggaacac atccccgtcg atctagctat gatcattgag
600
agggtgccac agccccggga tggctgggaa ctcactactg ccaaggcagt cgatctcgtc
660
gac
663

<210> 2512
 <211> 221
 <212> PRT
 <213> Homo sapiens

<400> 2512
 Xaa Arg Val Trp Asp His Ile Arg Gly Ala Arg Trp Phe Ser Gly Lys
 1 5 10 15
 Gly Arg Gly Gly Ser Leu Thr Arg Leu Leu Ser Leu Ala Pro Val Val
 20 25 30
 Asn Glu Gln Asp Leu Gln Val Leu Pro Val Ile Ala His Val Gly Tyr
 35 40 45
 Pro Gln Ala Ala Asp Glu Tyr Tyr Gln Leu Leu Leu Ala Leu Arg Pro
 50 55 60
 Gly Arg Val Ala Gly Leu Ala Glu Ile Val Val Asn Gly Gln Pro Phe
 65 70 75 80
 Thr Val Thr Asp Ala Thr Glu Asp Glu Leu Ala Leu Thr Ala Trp Ala
 85 90 95
 Arg Ile Leu Leu Glu Gly Thr Pro Ile Ala Met Asp Gly Ser Trp Gln
 100 105 110
 Leu His Arg Arg Arg Ala Ala Pro Glu Pro Val Arg Phe Ala Lys Arg
 115 120 125
 Phe Gly Gly Glu Gln Ser Asn Thr Ser Ile Met Val Gly Asp Ala Ile
 130 135 140
 Ile Ile Lys Met Phe Arg Arg Leu Glu Pro Gly Asp Asn Leu Asp Ile
 145 150 155 160
 Thr Val His Ser Ala Leu Asn Asp Ala Gly Ile Ser Ser Val Ala Thr
 165 170 175
 Leu Tyr Gly Phe Met Ser Gly Gln Ile Pro Ala Glu Glu His Ile Pro
 180 185 190
 Val Asp Leu Ala Met Ile Ile Glu Arg Leu Pro Gln Pro Arg Asp Gly
 195 200 205
 Trp Glu Leu Ile Thr Ala Lys Ala Val Asp Leu Val Asp
 210 215 220

<210> 2513
 <211> 368
 <212> DNA
 <213> Homo sapiens

<400> 2513
 ctggctggaa tgcacacatt tacctgcaac ctggctgaga atgtgtccag caaagttcgt
 60
 cagcttgacc tggccaagaa ccgcctctat caggccattc agagagctga tgacatcttg
 120
 gacctgaagt tctgcatgga tggagttcag actgctttga ggagtgaaga ttatgagcag
 180
 gctgcagcac atattcatcg ctactttgtc ctggacaagt cggtcattga gctcagccga
 240
 cagggcaaaag agggtcagca tccgaaactg gagcatgatt gatgccaaacc tgaattgtct
 300
 gcaggaagct gagcaacgtc tcaaagccat tgtggcagag aagtttgcca ttgccaccaa
 360

ggaaggtg
368

<210> 2514
<211> 93
<212> PRT
<213> Homo sapiens

<400> 2514
Leu Ala Gly Met Ile Thr Phe Thr Cys Asn Leu Ala Glu Asn Val Ser
1 5 10 15
Ser Lys Val Arg Gln Leu Asp Leu Ala Lys Asn Arg Leu Tyr Gln Ala
20 25 30
Ile Gln Arg Ala Asp Asp Ile Leu Asp Leu Lys Phe Cys Met Asp Gly
35 40 45
Val Gln Thr Ala Leu Arg Ser Glu Asp Tyr Glu Gln Ala Ala Ala His
50 55 60
Ile His Arg Tyr Leu Cys Leu Asp Lys Ser Val Ile Glu Leu Ser Arg
65 70 75 80
Gln Gly Lys Glu Gly Gln His Pro Lys Leu Glu His Asp
85 90

<210> 2515
<211> 351
<212> DNA
<213> Homo sapiens

<400> 2515
agatcttaag ggccccagga atttggtttg ttttcctttt taactcccca ggtaattatg
60
gctcatcctg gaccagaccc ttctacccc tccaactccc caacaactgg gcaattggaa
120
tatcagtcca tccctaaaag ccaaccaggc tctcccgagg gaggcaggaa atccctgctc
180
cttccatccc ccaccgggaa tgctgcaggg ggcttgaggg aggcgacaca gtggggagct
240
ctgggtgcag gtgggcagac aatgggcca caccacccct cagccccgct ccagtatcag
300
cattccagac ccaccacct gggcccttgg tcaccgggag acctcacgcg t
351

<210> 2516
<211> 98
<212> PRT
<213> Homo sapiens

<400> 2516
Met Ala His Pro Gly Pro Asp Pro Ser Tyr Pro Ser Asn Ser Pro Thr
1 5 10 15
Thr Gly Gln Leu Glu Tyr Gln Ser Ile Pro Lys Ser Gln Pro Gly Ser
20 25 30
Pro Glu Gly Gly Arg Lys Ser Leu Leu Pro Pro Ser Pro Thr Gly Asn.
35 40 45
Ala Ala Gly Gly Leu Arg Glu Ala Thr Gln Trp Gly Ala Leu Gly Ala


```

      50              55              60
Gly Gly Gln Thr Met Gly Gln His Thr Pro Ser Ala Pro Leu Gln Tyr
65              70              75              80
Gln His Ser Arg Pro Thr His Leu Gly Pro Trp Ser Pro Gly Asp Leu
      85              90              95
Thr Arg

```

<210> 2517

<211> 356

<212> DNA

<213> Homo sapiens

<400> 2517

```

acgcgtggaa agacagtgac tgtgagtgtg tacgcatggg agcagaaggg gaggacaaac
60
ggaggtggcc agtgagtcag gaggcggggg ggggggctag ggcttcccca ggggtcaggga
120
cctgtcacca accaaaacccc atgggcctat tcagcagccc caacttggct ggtctggccg
180
aggccacaca ttccctgggg actgagctcc aaggtgctgg gtccctgagc aggaagcgcg
240
cagtggttag tgggcagtggt ctcactccag cccctccttc ccaggccagt tcttctcatc
300
tccttcagtc tttccaagc aggcctcat ctacagggca gacctgactg gctagc
356

```

<210> 2518

<211> 103

<212> PRT

<213> Homo sapiens

<400> 2518

```

Met Gly Ala Glu Gly Glu Asp Lys Arg Arg Trp Pro Val Ser Gln Glu
  1              5              10              15
Ala Gly Gly Gly Ala Arg Ala Ser Pro Gly Val Arg Thr Cys His Gln
      20              25              30
Pro Asn Pro Met Gly Leu Phe Ser Ser Pro Asn Leu Ala Gly Leu Ala
      35              40              45
Glu Ala Thr His Ser Leu Gly Thr Glu Leu Gln Gly Ala Gly Ser Leu
      50              55              60
Ser Arg Lys Arg Pro Val Leu Ser Gly Gln Cys Leu Thr Pro Ala Pro
65              70              75              80
Pro Ser Gln Ala Ser Ser Ser His Leu Pro Gln Ser Phe Pro Ser Arg
      85              90              95
Pro Ser Ser Thr Gly Gln Thr
      100

```

<210> 2519

<211> 830

<212> DNA

<213> Homo sapiens

<400> 2519

accggtcagt ctgcgcggca gcaccgcacc ccggagccgc agctcttctt cccgcttgcc
 60
 cgacagccct ggtgcccaagc cctgtctgag cccaccagg aggaagcgcg tgcctggctgc
 120
 tctccatctg ctctgggact ctggcctgct gcttcctctg cctgccactc cccaaccccg
 180
 ttctctctc tgaaaactgg agctacacct gcccacacag ggagagaatta ccttaaatgg
 240
 cacaagacaa ttgcacagca gacccacctc ttctccaaag ttttcagggc ccaaacccag
 300
 acacctctct cgaggactca tggctaccgt gggctcgac caccagcctc cccatgcgtt
 360
 ttctgcctc tgccttttgc caatctgctc aatgacagaa acgcgacaac agaggggcact
 420
 ttctccaaac ccagctctcc ctgagagctc ccctcctgct gctcagctg aggccactct
 480
 accctgcctt ccgcagctca caggcagacc tggagcccg tgactacagg gttggcctcc
 540
 tcatcttgcc accactcaca atgcccagca gtgttaaaat ccggcaggat gcacccgcct
 600
 gggaagcagt ccccaaagca gaatcgtcac cacatctgaa tagtttctgc catccactg
 660
 acaggccagc atctaaaga gatgtgcgt gagcgctcgt tatgtggtgg cgtcgtggtg
 720
 gtttcttaac cagaacgcaa aatcctgtga ccaggattat caccgcgtcg ttctacatc
 780
 gagacggggg aagccaaagt aaccactcag gccacagcag aaaaacgcgt
 830

<210> 2520

<211> 107

<212> PRM

<213> Homo sapiens

<400> 2520

Met	Ser	Pro	Ala	Arg	Arg	Cys	Leu	Gly	Leu	Gly	Pro	Glu	Asn	Phe	Gly
1				5					10				15		
Glu	Glu	Val	Gly	Leu	Leu	Cys	Asn	Cys	Leu	Val	Pro	Phe	Lys	Val	Ile
		20					25					30			
Leu	Pro	Cys	Trp	Gly	Arg	Cys	Ser	Ser	Phe	Gln	Arg	Arg	Lys	Arg	
		35				40				45					
Gly	Trp	Gly	Val	Ala	Gly	Arg	Gly	Ser	Ser	Arg	Pro	Glu	Ser	Gln	Ser
		50			55					60					
Arg	Trp	Arg	Ala	Ala	Ser	Thr	Arg	Phe	Leu	Leu	Val	Gly	Leu	Arg	Gln
65				70				75						80	
Gly	Leu	Ala	Pro	Gly	Leu	Ser	Gly	Lys	Arg	Glu	Glu	Glu	Leu	Arg	Leu
			85					90					95		
Arg	Gly	Ala	Val	Leu	Pro	Arg	Arg	Leu	Thr	Gly					
			100					105							

<210> 2521

<211> 4291

<212> DNA

<213> Homo sapiens

<400> 2521
ctctctctct ttcgggcgga gtcgcccacc actgccagcc cagcgctggg gggacctgct
60
ccaggctgta gccgcaggac cccaccaccc cccatggctc cctggcctt ggtgggggtc
120
acactectcc tggcggtccc cccatgctcc ggggcagcca ccccaacccc ctccctgcgc
180
cctcccccg ccaatgacag cgacaccagc acaggggggtc gccaggggtc ctaccgctgc
240
cagccggggg tgctgctgcc cgtgtgggag cccgacgacc cgtcgctggg tgacaaggcg
300
gcacgggcag tgggtgactt tgtggccatg gtctacatgt ttctgggagt gtccatcatc
360
gccgaccgtt tcatggcggc catcgaggtc atcacgtcaa aagagaagga gatcaccatc
420
accaaggcca acggtgagac cagcggtggc accgttcgca tctggaatga gacggtgtcc
480
aacctcacgc tcatggccct gggtctctcc gcaectgaga tctgtctgtc agtcatcgaa
540
gtctgcggcc acaacttcca ggcgggtgag ctggggcccag gccatcgtt gggcagcgct
600
gccttcaaca tgttttgggt catcgccgtg tgcattctag tcatccagc cggcgagagc
660
cgcaagatca agcacctgag agtcttcttt gtactgcct cttggagcat ctctgcctat
720
gtctggtctt atctcatcct tgtgttttt tccccggtg tggtcagggt gtgggaggcg
780
ctgctgaccc tggctcttct cccgggtgtc gtggtattcg cctggatggc cgacaagcgg
840
ctgctcttct acaagtacgt gtacaagcgc taccgcaccg acccacgcag cggcatcatc
900
ataggcgccg agggcgaccc cccgaagagc atcgagctgg acggcacgtt cgtgggcgcc
960
gaggccccag gtgagctggg cggcctgggc cggggccccg ccgaggcgcg cgagctggac
1020
gccagcgccc gcgaggtcat ccagatcctc aaggacctca agcagaagca cccggacaag
1080
gatctggagc agctggtggg catcgccaac tactacgcgc tgctgcacca gcagaagagc
1140
cgcgcttctt accgcatcca ggccacgcgg ctgatgaccg gcgccgggaa cgtgctgcgc
1200
agacacgcgg cygacgcctc gcgcaggcgg gcgcggccgg agggcgcggg cyaggacgaa
1260
gacgacggcg ccagccgcat cttcttcgag cctagcctct accactgctt ggagaactgc
1320
ggctccgtgc tgctgtccgt cacgtgccag ggcggcgagg gcaacagcac cttctacgtg
1380
gactaccgca ctgaggacgg ctctgccaag gcgggctccg actacgagta cagcgagggc
1440
acgtggtgt tcaaacaggc cgagacgcag aaggagctgc gcatcgcat catcgacgac
1500
gacatcttcg aggaggacga gcatttcttc gtgcggctgc tgaacctgcg cgtgggcgac
1560

g c g c a g g g c a t g t t c g a g c c g g a c g g c g g c g g g c g g c c c a a g g g g c g g c t g g t g g c g c g
1620
c t g c t g g c c a c c g t c a c c a t c c t g g a c g a c g a c c a c c a g c a g g c a t c t t c t c c t t c c a g g a c
1680
c g c c t g c t g c a c g t g a g c g a g t g c a t g g g c a c c g t g g a c g t g c g c g t c g t g c g c a g c t g
1740
g g c g c g c g c g g c a c c g t g c g c c t t c c c t a c c g c a c g g t g g a c g g c a c g g c g c g c g g c g g c
1800
g g c g t g c a c t a c g a g g a c g c g t g c g g a g a g c t g g a g t t t g g c a c g a c g a g a c c a t g a a a
1860
a c t c t t c a g g t g a a g a t a g t t g a t g a c g a g a a t a t g a a a a a g g a t a a t t t c t t c a t t
1920
g a g c t g g g c c a g c c c c a g t g g c t t a a g c g a g g g a t t t c a g c t c t g c t a c t c a a t c a a g g g
1980
g a t g g g g a c a g g a a g t a a c a g c c g a g g a g a g a g g a g g c t c g g a g g a t a g c a g a g a t g g g c
2040
a a g c c a g t t c t t g g g g a g a a c t g c c g c g c t g a g g t c a t c a t c a g a g a t c a t a t a g a t t t t
2100
a a g a a c a c g g t g g a t a a a c t c a t c a a g a a a a c g a a c t t g g c c t t g g t a a t t g g g a c c c a t
2160
t c a t g g a g g g a g c a g t t t t t a g a g g c a a t t a c g g t g a g c g a g g g g a c g a g g a g g a g
2220
g a g g a c g g g t c c c g g g a g g a g c g g g t g c c g t c g c g t c g t g t a c t a c g t g a t g c a t t c c t g
2280
a c g g t g t t c t g g a a g g t g c t c t t c g c c t g t g t g c c c c c a c g a g t a c t g c c a c g g c t g g
2340
g c c t g c t t t g t g t e t c c a t c c t g g t c a t c g g c t g c t a c c g c c c t c a t t g g g a c c t c
2400
g c c t c c c a c t t c g g c t g c a c c g t t g g c c t c a a g g a c t c t g t c a a t g c t g t t g t c t t c g t t
2460
g c c c t g g g c a c c t c c a t c c c t g a c a c g t t c g c a g c a a g g t g g c g g c g c t g c a g g a c c a g
2520
t g c g c g a c g c g t c c a t c g g c a a c g t g a c c g g c t c c a a c g c g g t g a a c g t g t c c t t g g c
2580
c t g g g c g t c g c c t g g t c t g t g g c g c c g t g t a c t g g g c g g t g c a g g g c g c c c c t c g a g
2640
g t g c g c a c t g g c a c g t g g c c t t c t c c g t c a c g t c t t c a c c g t c t t c g c c t c g t g g g c
2700
a t t g c c g t g c t g c t g t a c c g g c g c g g c c g c a c a t c g g c g g c a g a c t g g g c g g c c c g c g c
2760
g g a c c c a a g c t c g c c a c c a c c g c g c t c t t c t g g g c c t c t g g c t c e t g t a c a t c t c t t c
2820
g c c a g c c t g g a g g c g t a c t g c c a c a t c c g g g c t t c t a g g g c c t c g c a g a g a c t c g t c
2880
c c c a c g c c c g c c c g g g g c t a g g g a c t c g g c t g c a c c t g c t c t t g g a c c c t g g t c t c c t t
2940
t t c c c c c a g a c t c g g c c t c t c t c c t g g g a c t c g g c c t c c t t c t c g c c c c t c c c c t
3000
g g c t t g a t t g c c c c t g t t c t g t g t c c c c a g t a g t c a g c c t c c c t c t t c e t t c g g g a
3060
g c c t c c c c g g t t c c t c c c c t g c g g t g a c c c a a c t c c a g c c a t c c t g t t g g t a c c g t c
3120
t a t a t c c c t g g g g a a t t t c c a c c c a g t c c c t c c c c a g g a a c c a c c c c a g t a a c c a
3180

tcctggggag ttaaggtct ctctccttg taccagcc tggctttgcc cccaaagtct
 3240
 ccctccctc agtgaccccc cccacttca ccccatgtcc cagagcctca gaacccaccc
 3300
 tcctggggg accctcgaag gaggtgtca gaggcgtct cagctccag ccctccccc
 3360
 cagccctcag ggagctccgc tcagccccg cggggaggag cgggtgggtg tgccgcgaag
 3420
 gaggcgcac acctttcctt ccaatccctc cactcgggtt cttgggagga cactcattct
 3480
 cagggtcgg agacgagggg agaagtttgg ggtttcagtc ccagggtcta gccggaggaa
 3540
 gcacattttg aacctgcaac ttcagacatt ccagctcccc cactcgccct ccaactacct
 3600
 tgagagccca gccacgcctt ggagggagg gcttgtgtgt gtatatagtg tgtttggggg
 3660
 aggggggacg cggggagggt catgtcttgg gaaaaggggg tgacagacaa cttttgagag
 3720
 ggcagcagac tccctcagcc atgagaacca gctttgggga ggaggccggg aatcaaagcg
 3780
 agtcaggtt atctccctg acaatctgga aggttcattt tgcctcagt gccagccaat
 3840
 ccgggcagga ccctcgaaga ggagaccgag ggtccagag gaccaatgct acaagccagc
 3900
 aaatgctgcc acatctctgc ctgatggggg gtggggatgg gtgggggat gggactgggg
 3960
 caagggatct ggggtggcat ttttaacttt ggaggccttc catctgtcgg taggccatct
 4020
 gcattttctt actgttgatg ttctctgccc aaaggacaca tttgggcagt gccaccact
 4080
 ccttgggccc ctaggatgac ccaactaccc ccataacttt ctgcttccca caggttttca
 4140
 gcattctatc gtcctgttgt gtcagcccc aacatccag accggtacc cgtaccctt
 4200
 ctctccccc gctcatcate agtcgctgtc tctttctgt gatttctgta aaagttgcca
 4260
 taaaactttg aaattctgcc tgaaaaaaaaa a
 4291

<210> 2522

<211> 952

<212> PRT

<213> Homo sapiens

<400> 2522

Leu Ser Leu Phe Arg Ala Glu Ser Pro Thr Thr Ala Ser Pro Ala Leu
 1 5 10 15
 Gly Gly Pro Ala Pro Gly Cys Ser Arg Arg Thr Pro Pro Pro Pro Met
 20 25 30
 Ala Pro Leu Ala Leu Val Gly Val Thr Leu Leu Leu Ala Ala Pro Pro
 35 40 45
 Cys Ser Gly Ala Ala Thr Pro Thr Pro Ser Leu Pro Pro Pro Ala
 50 55 60
 Asn Asp Ser Asp Thr Ser Thr Gly Gly Cys Gln Gly Ser Tyr Arg Cys

65		70		75		80
Gln	Pro	Gly	Val	Leu	Leu	Pro
		85	Pro	Val	Trp	Glu
				90	Pro	Asp
					Asp	Pro
					95	Ser
						Leu
Gly	Asp	Lys	Ala	Ala	Arg	Ala
		100	Val	Val	Tyr	Phe
				105	Val	Ala
					Met	Val
					110	Tyr
Met	Phe	Leu	Gly	Val	Ser	Ile
		115	Ile	Ile	Ala	Asp
				120	Arg	Phe
					125	Met
						Ala
						Ala
						Ile
Glu	Val	Ile	Thr	Ser	Lys	Glu
		130	Lys	Glu	Ile	Thr
				135	Ile	Thr
					140	Lys
						Ala
						Asn
Gly	Glu	Thr	Ser	Val	Gly	Thr
				Val	Arg	Ile
					145	Trp
						Asn
						Glu
						Thr
						Val
						Ser
Asn	Leu	Thr	Leu	Met	Ala	Leu
				150	Gly	Ser
						Ser
						Ala
						Pro
						Glu
						Ile
						Leu
						Leu
						160
						165
						170
						175
Ser	Val	Ile	Glu	Val	Cys	Gly
					His	Asn
						Phe
						Gln
						Ala
						Gly
						Glu
						Leu
						Gly
						170
						175
						180
						185
						190
						195
						200
						205
						210
						215
						220
						225
						230
						235
						240
						245
						250
						255
						260
						265
						270
						275
						280
						285
						290
						295
						300
						305
						310
						315
						320
						325
						330
						335
						340
						345
						350
						355
						360
						365
						370
						375
						380
						385
						390
						395
						400
						405
						410
						415
						420
						425
						430
						435
						440
						445
						450
						455
						460
						465
						470
						475
						480
						485
						490
						495
						500

930 935 940
 Ala Tyr Cys His Ile Arg Gly Phe
 945 950

<210> 2523
 <211> 392
 <212> DNA
 <213> Homo sapiens

<400> 2523
 nnnattacct acgttcgcac cctgtcagga ttgcctaca cgcgatttgt cgtggatgtc
 60
 ttcagccgaa aaattgttgg tgttctaca cgctcgacga tgcgtaccga tgcgtcgccc
 120
 atggaggctt tggagcatgc gttaacgact gcaggcgaa ttcattgaaa coagttaatt
 180
 caccatagcg atcggggcag ccagtacgtg tcaactgaagt attccacgcg gtagcggaa
 240
 tccggaatcc gtccagtggt gggaacagtc ggcgattctt atgacaatgc tctagccgaa
 300
 acagtcacag gtctctacaa ggcggaactg attcatgccc aagggtccgtg gacgtcggtc
 360
 ggagaagtcg aattggccac ctgcgggnnn nn
 392

<210> 2524
 <211> 130
 <212> FRT
 <213> Homo sapiens

<400> 2524
 Xaa Ile Thr Tyr Val Arg Thr Leu Ser Gly Phe Ala Tyr Thr Ala Phe
 1 5 10 15
 Val Val Asp Val Phe Ser Arg Lys Ile Val Gly Val Ala Thr Arg Ser
 20 25 30
 Thr Met Arg Thr Asp Ala Leu Pro Met Glu Ala Leu Glu His Ala Leu
 35 40 45
 Thr Thr Ala Gly Arg Ile His Gly Asn Gln Leu Ile His His Ser Asp
 50 55 60
 Arg Gly Ser Gln Tyr Val Ser Leu Lys Tyr Ser Thr Ala Leu Ala Glu
 65 70 75 80
 Ser Gly Ile Arg Pro Ser Val Gly Thr Val Gly Asp Ser Tyr Asp Asn
 85 90 95
 Ala Leu Ala Glu Thr Val Asn Gly Leu Tyr Lys Ala Glu Leu Ile His
 100 105 110
 Ala Gln Gly Pro Trp Thr Ser Val Gly Glu Val Glu Leu Ala Thr Leu
 115 120 125
 Arg Xaa
 130

<210> 2525
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 2525
 acgctgtctc gggcgagggc atcgagatt tcgaatgcac ggtgatggcg gtgtgccgca
 60
 tcccctttga atacgtgtgtg ctgtcaccgc cgcgggaatc aagaaccgca cgttgcgcaa
 120
 atcgctgogc tacgcaccaa cgtggtcggc aagatgttgg tcagcggcgca gccccgcnaa
 180
 tgattcatat ctccgatata agcacgacag gggcgctcatt ccgctctgca catcgcttg
 240
 gaagtcagcg gtgcgcccgc acgctcgca ttctgggtga agacgcgcga ctaccattca
 300
 gaactggtgg ccgcaacact cattcgcagc gagaagcccg ccgatttgcc caacacctat
 360
 caatacggcg tggaaattc
 378

<210> 2526
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 2526
 Met Ala Val Cys Arg Ile Pro Phe Glu Tyr Val Val Leu Ser Pro Pro
 1 5 10 15
 Arg Glu Ser Arg Thr Ala Arg Cys Ala Asn Arg Cys Ala Thr His Gln
 20 25 30
 Arg Gly Arg Gln Asp Val Gly Gln Arg Arg Ala Pro Xaa Met Ile His
 35 40 45
 Ile Ser Asp Ile Ser Thr Thr Gly Ala Ser Phe Arg Ser Ala His Arg
 50 55 60
 Leu Gly Ser Gln Arg Cys Ala Arg Thr Pro Ala Ile Ser Gly Glu Asp
 65 70 75 80
 Ala Arg Leu Pro Phe Arg Thr Gly Gly Arg Asn Thr His Ser Gln Arg
 85 90 95
 Glu Ala Arg Arg Phe Ala Gln His Leu Ser Ile Arg Arg Gly Ile
 100 105 110

<210> 2527
 <211> 305
 <212> DNA
 <213> Homo sapiens

<400> 2527
 ntggctacct tccgaatggg acggcgggccc aaaccocgaga tcatggccag caaagagcag
 60
 cagatccaga gagacgacct tggagccagt cccagagca gcagccagcc agaccacggc
 120
 cgccctctccc cccagaagc tcccagacag cccaccatct ccaaggccctc cgagacctca
 180
 gtgtacgtga cctggattcc ccgtggggaat ggtgggttcc caatccagtc ctctcgtgtg
 240
 gagtacaaga agctaagaa agtgggagac tggattctgg ccaccagcgc catcccccca
 300

cgcggt
305

<210> 2528
<211> 101
<212> PRT
<213> Homo sapiens

<400> 2528
Xaa Val Thr Phe Arg Met Gly Arg Arg Pro Lys Pro Glu Ile Met Ala
1 5 10 15
Ser Lys Glu Gln Gln Ile Gln Arg Asp Leu Gly Ala Ser Pro Gln
20 25 30
Ser Ser Ser Gln Pro Asp His Gly Arg Leu Ser Pro Pro Glu Ala Pro
35 40 45
Asp Arg Pro Thr Ile Ser Thr Ala Ser Glu Thr Ser Val Tyr Val Thr
50 55 60
Trp Ile Pro Arg Gly Asn Gly Gly Phe Pro Ile Gln Ser Phe Arg Val
65 70 75 80
Glu Tyr Lys Lys Leu Lys Lys Val Gly Asp Trp Ile Leu Ala Thr Ser
85 90 95
Ala Ile Pro Pro Arg
100

<210> 2529
<211> 387
<212> DNA
<213> Homo sapiens

<400> 2529
acgogtctcc cgtgggtggg tcccgatccc cgggccggct ctgccactga agcctctccc
60
tgtgtctctcc gtgccccccg agtggcctgc tagcccgctc tcccacacag tctccttgat
120
gtgaagtgtc acccggtctg ctgcggcggtg tctccgccgt aacaogtgta taccggctca
180
gccatggcgg cggtgctctg gaaggctcct gcgtatggct ttgccatccg ggacccggggc
240
ttgtctctgc aggggtgggc ttctgagcag aggaagccca gaggtaacca ggtccatgca
300
cgtttgtgtc ttccacaat gtcgggcttt tatggatgct tttagtctca gtcacaaaaa
360
ccatgagctc cacaggttcc tgaggga
387

<210> 2530
<211> 121
<212> PRT
<213> Homo sapiens

<400> 2530
Met Ala Phe Val Thr Glu Thr Lys Ser Ile His Lys Ser Pro Thr Leu
1 5 10 15
Trp Lys Asp Thr Asn Val His Gly Pro Gly Tyr Leu Trp Pro Ser Ser

```

                20                25                30
Ala Gln Lys Pro Thr Pro Ala Glu Gln Ser Pro Gly Pro Gly Trp Gln
   35                40                45
Ser His Thr Gln Glu Pro Ser Gln Gln Pro Pro Trp Leu Ser Arg
   50                55                60
Tyr Thr Arg Val Thr Ala Glu Thr Arg Arg Ser Lys Pro Gly Asp Thr
   65                70                75                80
Ser His Gln Gly Asp Cys Val Gly Glu Arg Ala Ser Arg Pro Leu Gly
   85                90                95
Gly His Gly Gly His Arg Glu Arg Leu Gln Trp Gln Ser Arg Pro Gly
   100                105                110
Asp Arg Asp Pro Pro Arg Gly Asp Ala
   115                120

```

```

<210> 2531
<211> 396
<212> DNA
<213> Homo sapiens

```

```

<400> 2531
tctagagata caaaaagtac tctatacact gagagacatc tggataaata caaagggtga
60
gctttccaac cagctgaaga tgacaagact aaacccaag tcgctgcagc tctgtgtcat
120
ctcatcagca gccctggaga tgacaaagat agtgctgagg gggacacagc ctctgtcatc
180
agttaaagat atgctagcct tcttttttct tccagacatt cctgaatcca gagaactttc
240
ctgtaatgcy tcaaatcctt taggtctcaa tcttttcctt agagagacaa ggagcacagt
300
tcgttcccaa ggccecccat gcttggcgag ggcgtctctg ctttccaggc agggctcctg
360
tgccctcacc cactgcagg gaaaggaagg acgcgt
396

```

```

<210> 2532
<211> 105
<212> PRT
<213> Homo sapiens

```

```

<400> 2532
Met Thr Arg Leu Asn Pro Lys Ser Leu Gln Leu Cys Val Ile Ser Ser
 1      5      10      15
Ala Ala Leu Glu Met Thr Lys Ile Val Leu Arg Gly Asn Arg Pro Ser
 20      25      30
Ser Ser Val Lys Asp Met Leu Ala Phe Leu Phe Leu Pro Asp Ile Pro
 35      40      45
Glu Ser Arg Glu Leu Ser Cys Asn Ala Ser Asn Pro Leu Gly Leu Asn
 50      55      60
Ser Phe Pro Arg Glu Thr Arg Ser Thr Val Arg Ser Gln Gly Pro Pro
 65      70      75      80
Cys Leu Ala Arg Ala Ser Leu Leu Ser Arg Gln Gly Pro Ala Ala Ser
 85      90      95
Thr His Val Gln Gly Lys Glu Gly Arg

```

100

105

<210> 2533
 <211> 495
 <212> DNA
 <213> Homo sapiens

<400> 2533
 ngccggccag atgtcccggt cgtgctggtg gccgggggct gtgcaggagt cctggcctgg
 60
 gctgtggcan ccccatgga cgtgatcaag tcgagactgc aggcagacgg gcagggccag
 120
 aggcgtacc ggggtctcct gcaactgtatg gtgaccagcg ttcgagagga gggaccccg
 180
 gtcccttttca aggggctggt actcaattgc tgccgcgcct tccctgtcaa catggtggtc
 240
 ttctgcgcct atgaggcagt gctgaggctc gcccggggtc tgctcacata gccgtcccc
 300
 acgcccagcg gccaccacc cagcagctgc tggaggctcgt agtggctgga ggaggcaagg
 360
 ggtatgtggt ctgggttcgg gacccacag ggccattgcc caggagaatg agggacctcc
 420
 ctgacgtgtt ctgggcccag gcctgagctc gccctgccca gctactgacc tcaggctgag
 480
 gggcccgcca gccat
 495

<210> 2534
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 2534
 Xaa Arg Pro Asp Val Pro Gly Val Leu Val Ala Gly Gly Cys Ala Gly
 1 5 10 15
 Val Leu Ala Trp Ala Val Ala Xaa Pro Met Asp Val Ile Lys Ser Arg
 20 25 30
 Leu Gln Ala Asp Gly Gln Gly Gln Arg Arg Tyr Arg Gly Leu Leu His
 35 40 45
 Cys Met Val Thr Ser Val Arg Glu Glu Gly Pro Arg Val Leu Phe Lys
 50 55 60
 Gly Leu Val Leu Asn Cys Cys Arg Ala Phe Pro Val Asn Met Val Val
 65 70 75 80
 Phe Val Ala Tyr Glu Ala Val Leu Arg Leu Ala Arg Gly Leu Leu Thr
 85 90 95

<210> 2535
 <211> 1904
 <212> DNA
 <213> Homo sapiens

<400> 2535
 ncggcccggt aacgtggctg gttggaggag gtagatcacc ctttctgcgg gggacgattt
 60

cgctcggtggt aggetgctac catgaggttg aatcagaaca ccttgctgct ggggaagaag
120
gtgggtctctg taccetacac ctgagagcat gtgccacga ggtaccacga gtggatgaaa
180
tcagaggagc tgcagcgttt gacagccctg gagccgctga ccttgagca ggaatgccc
240
atgcagtgca gctggcagga agatgcagac aagtgtacct tcattgtgct ggaatgccc
300
aagtggcagg cccagccagg cgccaccgaa gagagctgca tgggtgggaga cgtgaacctc
360
ttcctcacag atctagaaga cccacacctg ggggagatcg aggtcatgat tgcagagccc
420
agctgcaggg gtaaggccct tggcactgag gccgttctcg cgatgctgct ttacggagtg
480
accacgctag gtctgaccaa gttttaggct aaaattgggc aaggaaatga accaagcatc
540
cggatgttcc agaaaattca ctttgagcag gtggctacga gcagtgtttt tcaggagggtg
600
accctcagac tgacagtggg tgagtcagag catcagtggtc ttctggagca gaccagccac
660
gtggaagaga agccttacag agatgggtcg gcagagccct gctgatggct gggccttggt
720
ggcagccact ctgtgtgagc aggggtgttg gccatacac ttcaaagacc agagccctgc
780
actgggagag gtctcctggc ccaggctggg aatcaccttt cgaggccctt cagactctgg
840
cggggccttc tgtggcctcc ctccagctag tgggtgggtc gagcagactc cagggccagg
900
gccagttccc ttctcccctc ccggccaaac ccagaccag actctaggaa gctggaatgg
960
agggcaggga tccatgggag atgtcgggat gaagggtggga gctggaggtg cagggggacc
1020
tggaacatgg atgggagtggt acaggccctt ctcccttagag gccagaggtg ctgccttggt
1080
tgggagtgaa gctccaggca ctaccagctt tectgatttt ccggtttggt ccatgtgaag
1140
agctaccacg agccccagcc tcacagtgtc cactcaaggg cagcttggtc ctctgttctc
1200
gcagaggcag gctgggtgtga cctggggaac ttgacccggg aacaacagggt ggtccagagt
1260
gagtggtggcc tggccccctca acctagtgtc cgtcctcctc tctcctggag ccagttctga
1320
gtttaaaggc attagtgtta gatacagctc cttgtggctg gaaaacaccc ctctgctgat
1380
aaagctcagg gggcactgag gaagcagagg ccccttgggg gtgcctcctc gaagagagcg
1440
tcaggccatc agctctgtcc ctctggtgct cccacgtctg ttctcaccce tcatctctg
1500
ggagcagctg caccctgactg gccacgcggg ggcagtgagc gcacaggctc aggggtggcc
1560
ggctacctgg caccctatgg cttacaaagt agagttggcc cagtttccct ccacctgagg
1620
ggagcactct gactcctaac agtcttccct gccctgccat catctggggg ggtcggctgt
1680

caagaaaggc cgggcatgct ttctaaacac agccacagga ggctttagg gcattctcca
 1740
 ggtggggaaa cagtcttaga taagtaaggt gacttgcccta aggcctccca gcacccttga
 1800
 tcttgaggatc tcacagcaga ctgcatgtga acaactggaa cggaaaacat gcctcagtat
 1860
 aaaacaaaca ttataaaacg aaaaaaaaaa aaaaaaaaaa tact
 1904

<210> 2536

<211> 207

<212> PRT

<213> Homo sapiens

<400> 2536

Met	Arg	Leu	Asn	Gln	Asn	Thr	Leu	Leu	Leu	Gly	Lys	Lys	Val	Val	Leu
1			5					10					15		
Val	Pro	Tyr	Thr	Ser	Glu	His	Val	Pro	Ser	Arg	Tyr	His	Glu	Trp	Met
			20				25						30		
Lys	Ser	Glu	Glu	Leu	Gln	Arg	Leu	Thr	Ala	Ser	Glu	Pro	Leu	Thr	Leu
			35				40					45			
Glu	Gln	Glu	Tyr	Ala	Met	Gln	Cys	Ser	Trp	Gln	Glu	Asp	Ala	Asp	Lys
			50			55				60					
Cys	Thr	Phe	Ile	Val	Leu	Asp	Ala	Glu	Lys	Trp	Gln	Ala	Gln	Pro	Gly
65				70					75				80		
Ala	Thr	Glu	Glu	Ser	Cys	Met	Val	Gly	Asp	Val	Asn	Leu	Phe	Leu	Thr
			85					90					95		
Asp	Leu	Glu	Asp	Pro	Thr	Leu	Gly	Glu	Ile	Glu	Val	Met	Ile	Ala	Glu
			100				105						110		
Pro	Ser	Cys	Arg	Gly	Lys	Gly	Leu	Gly	Thr	Glu	Ala	Val	Leu	Ala	Met
			115				120					125			
Leu	Ser	Tyr	Gly	Val	Thr	Thr	Leu	Gly	Leu	Thr	Lys	Phe	Glu	Ala	Lys
			130			135					140				
Ile	Gly	Gln	Gly	Asn	Glu	Pro	Ser	Ile	Arg	Met	Phe	Gln	Lys	Leu	His
			145		150				155					160	
Phe	Glu	Gln	Val	Ala	Thr	Ser	Ser	Val	Phe	Gln	Glu	Val	Thr	Leu	Arg
			165					170					175		
Leu	Thr	Val	Ser	Glu	Ser	Glu	His	Gln	Trp	Leu	Leu	Glu	Gln	Thr	Ser
			180				185						190		
His	Val	Glu	Glu	Lys	Pro	Tyr	Arg	Asp	Gly	Ser	Ala	Glu	Pro	Cys	
			195				200					205			

<210> 2537

<211> 509

<212> DNA

<213> Homo sapiens

<400> 2537

acggttctc gtaaggacaa gcttgacgcc gaggtgcatg ccggtgaagg cccccccggg
 60
 gatgtcatcg tgctgcgggtt ttccggagcc atggcgaagc gtcctgcctc agttatcctt
 120
 ccgctgctac tgctggactc ccccgctcatt gcgtgggtggc ccttctccgg ccctgacaaac
 180

ctcgctcgg accccatcgg agcccttgcg gaccgcccga tcaccgactc ggcagctgac
 240
 aaagatccgt gcaaagccct catacgccgt gcggctcacc taaccgaggg tgactccgac
 300
 ctgtgttggg ctgcgaccac cagctggaga gccctagctg cagcagcttt ggaatcaacat
 360
 ccagcgaccy tcaagtctgc tcgggtagag tcagccgcgg gtaatgcgcc ggcgatgctg
 420
 ctggcagcct ggctaggatt gcgtctcggc gtcccggctg agcgggtgac aaccgacgcg
 480
 cccggcatct ccgcatcgt catgtcgac
 509

<210> 2538

<211> 169

<212> PRT

<213> Homo sapiens

<400> 2538

Thr Arg Ser Arg Lys Asp Lys Leu Asp Ala Glu Val His Ala Gly Glu
 1 5 10 15
 Gly Thr Pro Gly Asp Val Ile Val Leu Arg Phe Ser Gly Ala Met Ala
 20 25 30
 Lys Arg Pro Ala Ser Val Ile Leu Pro Leu Leu Leu Ser Asp Ser Pro
 35 40 45
 Val Ile Ala Trp Trp Pro Phe Ser Gly Pro Asp Asn Leu Ala Ser Asp
 50 55 60
 Pro Ile Gly Ala Leu Ala Asp Arg Arg Ile Thr Asp Ser Ala Ala Asp
 65 70 75 80
 Lys Asp Pro Cys Lys Ala Leu Ile Arg Arg Ala Ala His Leu Thr Glu
 85 90 95
 Gly Asp Ser Asp Leu Cys Trp Ala Arg Thr Thr Ser Trp Arg Ala Leu
 100 105 110
 Ala Ala Ala Ala Leu Asp Gln His Pro Ala Thr Val Lys Phe Ala Arg
 115 120 125
 Val Glu Ser Ala Ala Gly Asn Ala Pro Ala Met Leu Leu Ala Ala Trp
 130 135 140
 Leu Gly Leu Arg Leu Gly Val Pro Val Glu Arg Val Thr Thr Asp Ala
 145 150 155 160
 Pro Gly Ile Ser Ala Ile Val Met Ser
 165

<210> 2539

<211> 453

<212> DNA

<213> Homo sapiens

<400> 2539

aagcttctac tgccgcgagc acgtcgtcca ccgtcgaggt catggttcta gtttcccg
 60
 tcgcgccatg acccgaggat agtgacgtgg gacaatggct acgtgcgttt tctcaacag
 120
 cagccgaact acgacctgac gtatgacgac gtcttcattg caccaaacgg ttcctcggtg
 180

ggggtcccgca tgaacgtcga cctcacgtca acagacgggc taggcactcc tctgcccctc
 240
 gtatgtggcca atatgaccgc aatttccgga cgctgcgatgg cagagacccat cgccaggcgcc
 300
 ggaggcattg ctgtttctgcc ccaagatatc ccggcggatt tcgtcgcccg gtccattcgg
 360
 cgcgtcaaaag atgcgcatac tcgattcgac accccagtc cgtcaaccc gacaacgact
 420
 gtcggtgagg ccatgaactt gctcaacaag cgc
 453

<210> 2540

<211> 134

<212> PRT

<213> Homo sapiens

<400> 2540

Phe Ala Ala Ser Arg His Asp Pro Arg Ile Val Thr Trp Asp Asn Gly
 1 5 10 15
 Tyr Val Arg Phe Leu Asn Glu Gln Pro Asn Tyr Asp Leu Thr Tyr Asp
 20 25 30
 Asp Val Phe Met Ala Pro Asn Arg Ser Ser Val Gly Ser Arg Met Asn
 35 40 45
 Val Asp Leu Thr Ser Thr Asp Gly Leu Gly Thr Pro Leu Pro Leu Val
 50 55 60
 Val Ala Asn Met Thr Ala Ile Ser Gly Arg Arg Met Ala Glu Thr Ile
 65 70 75 80
 Ala Arg Arg Gly Gly Ile Ala Val Leu Pro Gln Asp Ile Pro Ala Asp
 85 90 95
 Phe Val Ala Arg Ser Ile Arg Arg Val Lys Asp Ala His Thr Arg Phe
 100 105 110
 Asp Thr Pro Val Thr Val Asn Pro Thr Thr Thr Val Gly Glu Ala Met
 115 120 125
 Asn Leu Leu Asn Lys Arg
 130

<210> 2541

<211> 564

<212> DNA

<213> Homo sapiens

<400> 2541

accggtctcc caccgaggttc tgtttctcca ggtactgcac tgtatacaac tctaaatgca
 60
 ccctgcgatgg aaccatttgc agggcacacg cagttctacat gtatccagg ttttatgtct
 120
 acagagcctg caatactccg tgtctggaat acgttatattg ctgcacacct cccagaggaa
 180
 catgtaacgt ctgtgtaaca tgctatcctg cacacatctg aaagaatctg tgtacacaac
 240
 actattatgc tgtgcacaca ttctctcata ttctgtgtag agagcacctc attttgtact
 300
 caaatattcg gcttcataa caagttacat tgctcacatc ttaaaatatt cattacacgt
 360

gaaaccaccg catggtaccg acatccttct ggaatgtccc gcacagaggc tgatatatgt
 420
 gcacagtctt cactgttctg cgtgcccagc ccttcacact ggacgccccac ctcacactct
 480
 tctgccaagg gagactttgg ttctccctt cctgtgctg gctgtgctgg ccacagtcct
 540
 ctgcacgcca gcagcatgac gcgt
 564

<210> 2542
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 2542
 Met Leu Cys Thr His Phe Leu Ile Phe Cys Val Glu Ser Thr Ser Phe
 1 5 10 15
 Cys Thr Gln Ile Phe Gly Phe His Asn Lys Leu His Cys Ser His Leu
 20 25 30
 Lys Ile Phe Ile Thr Arg Glu Thr Thr Ala Trp Tyr Arg His Pro Ser
 35 40 45
 Gly Met Ser Arg Thr Glu Ala Asp Ile Cys Ala Gln Phe Ser Leu Phe
 50 55 60
 Cys Val Pro Ser Pro Ser His Trp Thr Pro Thr Ser His Ser Ser Ala
 65 70 75 80
 Lys Gly Asp Phe Gly Ser Pro Leu Pro Cys Ala Gly Cys Ala Gly His
 85 90 95
 Ser Pro Leu His Ala Ser Ser Met Thr Arg
 100 105

<210> 2543
 <211> 387
 <212> DNA
 <213> Homo sapiens

<400> 2543
 cgcttgaagg gggcggggaa aatggaatgg gggggaaggg cgcgggtggg gacatgctgg
 60
 aacgtgccca tgctttctgc accacactgg atgactgaag gggaagggaac gagcgtctta
 120
 ccgctcctga tgagattttt gtttttgctt aacaaagaaa tgtgtatgaa tgcacgtctg
 180
 ttgagcggg caggagaggag gagggctcctt ggaatagctg ccgacaacag ctggaactcc
 240
 tgcctgggtc cccagctgg gctagagagg gcagtgatca tctgtccact ggacaggaag
 300
 gtttgcaaa ggctgtttgc ttactgggtc ccaattttta gccttctgaa gccctgtcc
 360
 aatggggccc agcaggcagc agtgctg
 387

<210> 2544
 <211> 122
 <212> PRT

<213> Homo sapiens

<400> 2544

```

Met Glu Trp Gly Gly Arg Ala Arg Val Gly Thr Cys Trp Asn Val Pro
 1             5             10             15
Met Leu Ser Ala Pro His Trp Met Thr Glu Gly Glu Gly Thr Ser Val
                20             25             30
Leu Pro Leu Leu Met Arg Phe Leu Phe Leu Pro Asn Lys Glu Met Cys
                35             40             45
Met Asn Ala Arg Leu Phe Ala Gly Ala Gly Arg Arg Val Leu Gly
                50             55             60
Ile Ala Ala Asp Asn Ser Trp Asn Ser Cys Leu Gly Pro Pro Ala Gly
65             70             75             80
Leu Glu Arg Ala Val Ile Ile Cys Pro Leu Asp Arg Lys Val Cys Lys
                85             90             95
Gly Leu Phe Ala Tyr Trp Val Pro Ile Phe Ser Leu Leu Lys Pro Leu
                100            105            110
Ser Asn Gly Ala Gln Gln Ala Ala Val Leu
                115            120

```

<210> 2545

<211> 336

<212> DNA

<213> Homo sapiens

<400> 2545

```

gcgattattt tcgtgctgcc cggacttata atggctgggt ggtggctcagg tttcccgta
60
tggaccaccc tcgtatctcg tctagtcggc ggcatactcg gcgttatgta ctcgattccg
120
ctgcctcggg cctcgtgac aggcctcggat cttccctacc cggagggcgt cgcaggagct
180
gaggtgtcga aagtaggcga ttccgctggt gccgcgagg ctaacaaggt gsgtctgcga
240
gtcatcatcg tcggttctgt ggtctctgca gcgtaogccc tgttctcgga tcttaagctt
300
gtgaagtcgg cgctgaccaa gcctttcaag acgggc
336

```

<210> 2546

<211> 112

<212> PRT

<213> Homo sapiens

<400> 2546

```

Ala Ile Ile Phe Val Leu Pro Gly Leu Ile Met Val Gly Trp Trp Ser
 1             5             10             15
Gly Phe Pro Tyr Trp Thr Thr Leu Ala Ile Cys Leu Val Gly Gly Ile
                20             25             30
Leu Gly Val Met Tyr Ser Ile Pro Leu Arg Arg Ala Leu Val Thr Gly
                35             40             45
Ser Asp Leu Pro Tyr Pro Glu Gly Val Ala Gly Ala Glu Val Leu Lys
50             55             60
Val Gly Asp Ser Ala Gly Ala Ala Glu Ala Asn Lys Val Gly Leu Arg

```

```

65              70              75              80
Val Ile Ile Val Gly Ser Val Val Ser Ala Ala Tyr Ala Leu Leu Ser
              85              90              95
Asp Leu Lys Leu Val Lys Ser Ala Leu Thr Lys Pro Phe Lys Thr Gly
              100              105              110

```

<210> 2547

<211> 556

<212> DNA

<213> Homo sapiens

<400> 2547

```

acgcgtgcac acacacacac gcaggcgtac acgctcacaa gtgcacacac acatatgagt
60
ttccacaca tctcaccata tcactttctc ttactttttt aaagacaggg cacttgccct
120
tatggccaat aatattatgc ccaagctaca acattccgag tcaatcacaa aggtataaaa
180
cttcatttga actgaagacc acctgtaagc acgcagctca aatgtttctc cctagaaatt
240
caaagttgtg ttggaagtgt gacttaacgg tcaaagaaaa aggcctggcc aacttcagag
300
agggacaccc agccctgcta cgttgctgtg cattatgtgg tgctgtgcta tccatagaga
360
aagaggagat gaaaaagatt ctacaaagag agatcaaact gcaagaaagc acaaagattt
420
catcaccaca atatgaaggc ctccctggta taaatgactt ttttaggtcc caataagaaa
480
taccatctat tctatctgga attattttat tagcttcaaa ttttattcta agattcatatc
540
tatcagatca tctaga
556

```

<210> 2548

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2548

```

Met Asn Leu Arg Ile Lys Phe Glu Ala Asn Lys Ile Ile Pro Asp Arg
1          5          10          15
Ile Asp Gly Ile Ser Tyr Trp Asp Leu Lys Lys Ser Phe Ile Pro Arg
          20          25          30
Arg Pro Ser Tyr Cys Gly Asp Glu Ile Phe Val Leu Ser Cys Ser Leu
          35          40          45
Ile Ser Leu Cys Arg Ile Phe Phe Ile Ser Ser Phe Ser Met Asp Ser
          50          55          60
Thr Ala Pro His Asn Asp Thr Gln Arg Ser Arg Ala Gly Cys Pro Ser
65          70          75          80
Leu Lys Leu Ala Arg Pro Phe Ser Leu Thr Val Lys Ser Thr Phe Gln
          85          90          95
Thr Gln Leu Glu Phe Leu Gly Glu Asn Ile
          100          105

```

<210> 2549
 <211> 435
 <212> DNA
 <213> Homo sapiens

<400> 2549
 nncacgctc tctccgaccg cgtacgtatt gaatttgata aagaagccaa cacgggtgtt
 60
 atcgatgata atggtgtcgg catgtctcgt gaagaagcca ttacaaactt aggtacgatt
 120
 gctaaatcgg gcacctcttc ttcttagag caattgagtg gcgatcagaa aaaagacagc
 180
 caacttattg gtcaattcgg tgtaggcttt tactctgctt tcatcggtgc tgataaagta
 240
 acagtagaaa cagctcgcgc aggtgcgcgc gaaaatgaag cggttcgcgt ggtatctgat
 300
 gggtctgggt aatttactat tgagacgacg gataaagcga ctgcgtgtac acgcattact
 360
 ttgcattcga aagcagatga aaaagatttc gcagacaact tccgctacg ttcattagta
 420
 acaaaatatt ctgat
 435

<210> 2550
 <211> 145
 <212> PRT
 <213> Homo sapiens

<400> 2550
 Xaa Gln Pro Leu Ser Asp Arg Val Arg Ile Glu Phe Asp Lys Glu Ala
 1 5 10 15
 Asn Thr Val Val Ile Asp Asp Asn Gly Val Gly Met Ser Arg Glu Glu
 20 25 30
 Ala Ile Thr Asn Leu Gly Thr Ile Ala Lys Ser Gly Thr Ser Ser Phe
 35 40 45
 Leu Glu Gln Leu Ser Gly Asp Gln Lys Lys Asp Ser Gln Leu Ile Gly
 50 55 60
 Gln Phe Gly Val Gly Phe Tyr Ser Ala Phe Ile Val Ala Asp Lys Val
 65 70 75 80
 Thr Val Glu Thr Arg Arg Ala Gly Ala Thr Glu Asn Glu Ala Val Arg
 85 90 95
 Trp Val Ser Asp Gly Ser Gly Glu Phe Thr Ile Glu Thr Ile Asp Lys
 100 105 110
 Ala Thr Arg Gly Thr Arg Ile Thr Leu His Leu Lys Ala Asp Glu Lys
 115 120 125
 Asp Phe Ala Asp Asn Phe Arg Leu Arg Ser Leu Val Thr Lys Tyr Ser
 130 135 140
 Asp
 145

<210> 2551
 <211> 403
 <212> DNA
 <213> Homo sapiens

<400> 2551
 nngcggcca gcctcacatc agtctctccg ccccggggaa ggctcagcac tttaaatcga
 60
 ggactccact tctggggagc cctggttcgt tgcgccacca ggcctaggct acgctccatg
 120
 ctcccccagc aatctctgtc tacacctcct gcgggcctt gccctctcc gacccctttc
 180
 cagccannaa gtccccccac ccttcagag aagcagctc aaattccaga agtggaggct
 240
 ccagctccc cgcgaggtag cagccccaca gtcttctggg agccattgtg gccagggagc
 300
 gcctctggac tgccaggctg ggttggggac cagggaacat cggctactc aggtgtgagg
 360
 gggcaggctc ggctgcccc aaagtggct ccatcctgga can
 403

<210> 2552
 <211> 134
 <212> PRT
 <213> Homo sapiens

<400> 2552
 Xaa Pro Ala Ser Leu Thr Ser Val Ser Pro Pro Arg Gly Arg Leu Ser
 1 5 10 15
 Thr Leu Asn Arg Gly Leu His Phe Trp Gly Arg Leu Val Arg Ser Pro
 20 25 30
 Thr Arg Pro Arg Leu Arg Ser Met Leu Pro Gln Gln Ser Leu Ser Thr
 35 40 45
 Pro Pro Ala Ala Pro Cys Pro Pro Thr Pro Phe Gln Pro Xaa Ser
 50 55 60
 Pro Pro Thr Pro Ser Glu Lys Gln Pro Gln Ile Pro Glu Val Glu Ala
 65 70 75 80
 Pro Ala Ser Pro Arg Gly Thr Ser Pro Thr Val Phe Trp Glu Pro Leu
 85 90 95
 Trp Pro Gly Thr Ala Ser Gly Leu Pro Gly Trp Val Gly Asp Gln Gly
 100 105 110
 Thr Ser Val Tyr Ser Gly Val Arg Gly Gln Val Trp Pro Ala Pro Lys
 115 120 125
 Leu Ala Pro Ser Trp Thr
 130

<210> 2553
 <211> 380
 <212> DNA
 <213> Homo sapiens

<400> 2553
 actagtgtcc ctataagaaa aggaaaggac caagacacag gaaagatgaa gcagagattg
 60
 gagagataca gcatggggcca aggagcactg ggagccagca gcagctggaa gaggcaggag
 120
 gcatcctccc tagaccgcac aggatgctac tgggtgagcc tgctgtcctg gaaaaggcgt
 180

gaagctctgcc tgaagtgggca ggggcttctg cgcagcaccc agcaaggcca aggtggaagg
 240
 gacctctctg gccctgtgcc tggtccacc ctcagctgct ggcaggtggg tcaccaggcc
 300
 tctgccc aaa gaaactctg caggcagctc tggaccctc gtcttacaca ccttctcact
 360
 gagcctgcc gcatccagn
 380

<210> 2554
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 2554
 Met Lys Gln Arg Leu Glu Arg Tyr Ser Met Gly Gln Gly Ala Leu Gly
 1 5 10 15
 Ala Ser Ser Ser Trp Lys Arg Gln Glu Ala Ser Ser Leu Asp Arg Thr
 20 25 30
 Gly Cys Tyr Trp Val Ser Leu Leu Ser Trp Lys Arg Arg Glu Val Cys
 35 40 45
 Leu Ser Gly Gln Gly Leu Leu Arg Ser Thr Gln Gln Gly Gln Gly Gly
 50 55 60
 Arg Asp Pro Pro Gly Pro Cys Pro Gly Ser Thr Leu Ser Cys Trp Gln
 65 70 75 80
 Val Gly His Gln Ala Ser Ala Gln Arg Asn Ser Cys Arg Gln Leu Trp
 85 90 95
 Thr Pro Cys Leu Thr His Leu Leu Thr Glu Pro Ala Ser Ile Pro
 100 105 110

<210> 2555
 <211> 368
 <212> DNA
 <213> Homo sapiens

<400> 2555
 ntccggatgg aaaagtaaag accagcaata gccataaacg ccattaacac ataccatcat
 60
 atgttggttaa tgctgcccg tagttcgggt gcattcttca tgggcaatag tttaatggga
 120
 gataacgcga ataattgtag tgctgttcta gtgctcacag acctggctac ccaaatagaa
 180
 ggatttatat cctcccatat cctcattttt gtgctcgttg gcctcgccat tgcctttacc
 240
 gttgccactc gaggtgtaca gttccgcctc ttccggcaca tggcgacct catgtctgac
 300
 tcacggaagc aaaaggccac ctccctctcc agctctcaag cattcacagt ggggtctcgat
 360
 cacgcggn
 368

<210> 2556
 <211> 102
 <212> PRT

<213> Homo sapiens

<400> 2556

```

Met Leu Leu Met Leu Pro Gly Ser Ser Val Ala Phe Phe Met Gly Asn
 1             5             10             15
Ser Leu Met Gly Asp Asn Ala Asn Asn Gly Ser Val Val Leu Val Leu
 20             25             30
Thr Asp Leu Val Thr Gln Ile Glu Gly Phe Ile Ser Ser His Ile Leu
 35             40             45
Ile Phe Val Leu Val Gly Leu Gly Ile Val Phe Thr Val Ala Thr Arg
 50             55             60
Gly Val Gln Phe Arg Leu Phe Gly His Met Trp His Leu Met Leu Asp
 65             70             75             80
Ser Arg Lys Gln Lys Gly Thr Ser Leu Ser Ser Ser Gln Ala Phe Thr
 85             90             95
Val Gly Leu Asp His Ala
100

```

<210> 2557

<211> 408

<212> DNA

<213> Homo sapiens

<400> 2557

```

atcactactc cagttggtga ggcagttctg ggtcgcatct taaatgtgat cggtagagccg
 60
attgatgaga tgggccccagt taacgcgaaa gaaaaatggg aaattcaccg tccagctctc
120
aaattcgaag accaagctgt taaagctgag atgttgatga ctgggtattaa ggtcgttgat
180
cttcttgcac cttacgcaaa gggtaggcaag atcgggtctct tcgggtggtgc gggcgtagg
240
aaaacagttt tgattcaaga gttgattcgt aacatcgcta ctgagcacgg tggatactct
300
gtattcgagc gtgtcggcga gcgtactcgc gaaggtaacg atctttgggt tgagatgaaa
360
gaatcaggcg ttatcgcaaa gaccgcactt gtattcggct agatgaat
408

```

<210> 2558

<211> 136

<212> PRT

<213> Homo sapiens

<400> 2558

```

Ile Thr Thr Pro Val Gly Glu Ala Val Leu Gly Arg Ile Leu Asn Val
 1             5             10             15
Ile Gly Glu Pro Ile Asp Glu Met Gly Pro Val Asn Ala Lys Glu Lys
 20             25             30
Trp Glu Ile His Arg Pro Ala Pro Lys Phe Glu Asp Gln Ala Val Lys
 35             40             45
Ala Glu Met Leu Met Thr Gly Ile Lys Val Val Asp Leu Leu Ala Pro
 50             55             60
Tyr Ala Lys Gly Gly Lys Ile Gly Leu Phe Gly Gly Ala Gly Val Gly

```

```

65              70              75              80
Lys Thr Val Leu Ile Gln Glu Leu Ile Arg Asn Ile Ala Thr Glu His
85              90              95
Gly Gly Tyr Ser Val Phe Ala Gly Val Gly Glu Arg Thr Arg Glu Gly
100            105            110
Asn Asp Leu Trp Val Glu Met Lys Glu Ser Gly Val Ile Ala Lys Thr
115            120            125
Ala Leu Val Phe Gly Gln Met Asn
130            135

<210> 2559
<211> 389
<212> DNA
<213> Homo sapiens

<400> 2559
tccttgaaga tgaacatctt tcggctgcaa actgaaaagg atttgaatcc tcagaaaaca
60
gcttttttga aagatcgact gaatgcaata caggaagagc attctaagga cctgaagctg
120
ttgcattctg aagttatgaa ttgctgccag caactgagag ctgtaaaaga ggaagaagac
180
aaggcacaag atgaggtgca aaggttgact gccactctga agattgcctc cgagacaaaag
240
aagaatgcag ccattattga agaggaactg aagaccacaa aacgtaaaaa gaaccttaaa
300
attcaagagc ttctagagat gacctcattt ccaagttggt tgaagaaaat aagaacctgc
360
aggatatctt tcaacaggaa catgaagaa
389

<210> 2560
<211> 129
<212> PRT
<213> Homo sapiens

<400> 2560
Ser Leu Lys Met Asn Ile Phe Arg Leu Gln Thr Glu Lys Asp Leu Asn
1      5      10      15
Pro Gln Lys Thr Ala Phe Leu Lys Asp Arg Leu Asn Ala Ile Gln Glu
20     25     30
Glu His Ser Lys Asp Leu Lys Leu Leu His Leu Glu Val Met Asn Leu
35     40     45
Arg Gln Gln Leu Arg Ala Val Lys Glu Glu Glu Asp Lys Ala Gln Asp
50     55     60
Glu Val Gln Arg Leu Thr Ala Thr Leu Lys Ile Ala Ser Gln Thr Lys
65     70     75     80
Lys Asn Ala Ala Ile Ile Glu Glu Glu Leu Lys Thr Thr Lys Arg Lys
85     90     95
Met Asn Leu Lys Ile Gln Glu Leu Leu Glu Met Thr Ser Phe Pro Ser
100    105    110
Trp Leu Lys Lys Ile Arg Thr Cys Arg Ile Ser Phe Asn Arg Asn Met
115    120    125
Lys

```


<210> 2561
 <211> 429
 <212> DNA
 <213> Homo sapiens

<400> 2561
 nnactcacca ctgtggttct actatgcctt ctgaccccggt cttggacttc aactgggaga
 60
 atgtggagcc atttgaacag gctcctcttc tggagcatat tttcttctgt cactttgtaga
 120
 aaagctgtat tggattgtga ggcaatgaaa acaaatgaat tcccttctcc atgtttggac
 180
 tcaaagacta aggtggttat gaagggtcaa aatgtatcta tgttttcttc ccataagaac
 240
 aaatcactgc agatcaccta ttcattgttt cgacgtaaga cacacctggg aaccaggat
 300
 ggaaaagggtg aacctgcgat ttttaaccta agcatcacag aagcccatga atcaggcccc
 360
 tacaatatgca aagccaagt taccagctgt tcaaaatata gtctgtaact cagcttcacg
 420
 attgtcgac
 429

<210> 2562
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 2562
 Xaa Leu Thr Thr Val Val Leu Leu Cys Leu Leu Thr Pro Ser Trp Thr
 1 5 10 15
 Ser Thr Gly Arg Met Trp Ser His Leu Asn Arg Leu Leu Phe Trp Ser
 20 25 30
 Ile Phe Ser Ser Val Thr Cys Arg Lys Ala Val Leu Asp Cys Glu Ala
 35 40 45
 Met Lys Thr Asn Glu Phe Pro Ser Pro Cys Leu Asp Ser Lys Thr Lys
 50 55 60
 Val Val Met Lys Gly Gln Asn Val Ser Met Phe Cys Ser His Lys Asn
 65 70 75 80
 Lys Ser Leu Gln Ile Thr Tyr Ser Leu Phe Arg Arg Lys Thr His Leu
 85 90 95
 Gly Thr Gln Asp Gly Lys Gly Glu Pro Ala Ile Phe Asn Leu Ser Ile
 100 105 110
 Thr Glu Ala His Glu Ser Gly Pro Tyr Lys Cys Lys Ala Gln Val Thr
 115 120 125
 Ser Cys Ser Lys Tyr Ser Arg Asp Phe Ser Phe Thr Ile Val Asp
 130 135 140

<210> 2563
 <211> 267
 <212> DNA
 <213> Homo sapiens

<400> 2563
 ggatcccaga cgagtgcctgg cagcagtatg ggggcccgtgg gggcgacggc caccgtcagc
 60
 accccgggtca ccatccagaa catgacctcc tcttatgtca ccatcacatc ccatgtcctt
 120
 aaggcccttta ccctttggga acaggcagag gccctcaca ggaagaacaa agaattcttt
 180
 gctcagctca gcacaaaagt gcgcgtgttg gccctcaaca gcagcctggg ggacctgggtg
 240
 cactacacaa ggcagggcct ccagcgg
 267

<210> 2564
 <211> 89
 <212> PRT
 <213> Homo sapiens

<400> 2564
 Gly Ser Gln Thr Ser Ala Gly Ser Ser Met Gly Ala Val Gly Ala Thr
 1 5 10 15
 Ala Thr Val Ser Thr Pro Val Thr Ile Gln Asn Met Thr Ser Ser Tyr
 20 25 30
 Val Thr Ile Thr Ser His Val Leu Lys Ala Phe Thr Leu Trp Glu Gln
 35 40 45
 Ala Glu Ala Leu Thr Arg Lys Asn Lys Glu Phe Phe Ala Gln Leu Ser
 50 55 60
 Thr Lys Val Arg Val Leu Ala Leu Asn Ser Ser Leu Val Asp Leu Val
 65 70 75 80
 His Tyr Thr Arg Gln Gly Leu Gln Arg
 85

<210> 2565
 <211> 333
 <212> DNA
 <213> Homo sapiens

<400> 2565
 cttcgcaactg ctccgcgagt tcttggggga gtgagcacag cgcgtaagct cagccacgtg
 60
 tggttcgaat tcgattcctt ggtcaatgcc cgtgacgtgg gcggaatccc cacccccgat
 120
 gggccgggtga aatcccagcg actgatccgc agcgacaacc tgcaggccct caccgaggcc
 180
 gacatgccc agttgcagca actcggtgtc tccgatgtgg tcgatctgcg ttccacctat
 240
 gaggtggcca gcgagggccc ggggcccgtg accggggcgtg gggtagacct ccacccccat
 300
 tccttcctgc ccgaccagca cgccaatgtg cac
 333

<210> 2566
 <211> 111
 <212> PRT

<213> Homo sapiens

<400> 2566

```

Leu Arg Thr Ala Pro Arg Val Leu Gly Gly Val Ser Thr Ala Arg Lys
 1             5             10             15
Leu Ser His Val Trp Phe Glu Phe Asp Ser Leu Val Asn Ala Arg Asp
           20           25           30
Val Gly Gly Ile Pro Thr Pro Asp Gly Pro Val Lys Ser Gln Arg Leu
       35       40       45
Ile Arg Ser Asp Asn Leu Gln Ala Leu Thr Glu Ala Asp Ile Ala Gln
       50       55       60
Leu Gln Gln Leu Gly Val Ser Asp Val Val Asp Leu Arg Ser Thr Tyr
 65             70             75             80
Glu Val Ala Ser Glu Gly Pro Gly Pro Leu Thr Gly Arg Gly Val Thr
           85           90           95
Ile His Pro His Ser Phe Leu Pro Asp Gln His Ala Asn Val His
       100       105       110

```

<210> 2567

<211> 396

<212> DNA

<213> Homo sapiens

<400> 2567

```

ngaattcaaa ctggtgttcg tatgggccat aagcaaggta catatacgat gcgttttaga
 60
agccagtcca cagatcaacg tctattcgga accgatcaat ttagtattgg tggcgcgctat
120
tctgtacgag gttttagtgg agaagaaacc ttaagaggtg actcgggcta ttatgtacaa
180
aatgaatggg cattaccatt tagaaaacaa caaattactc catatgtagg gatagatatt
240
ggacatgtat gggggccatc tacagaaact caattaggtg ataccttaat tgggtggtgta
300
gttggtgtac gtggtatggt tggtgacgat gtaaaactatg atgtatcact aggaacacca
360
attaagaaac cagaaggttt tgatacagat acgcgt
396

```

<210> 2568

<211> 132

<212> PRT

<213> Homo sapiens

<400> 2568

```

Xaa Ile Gln Thr Gly Val Arg Met Gly His Lys Gln Gly Thr Tyr Thr
 1             5             10             15
Met Arg Phe Arg Ser Gln Phe Thr Asp Gln Arg Leu Phe Gly Thr Asp
           20           25           30
Gln Phe Ser Ile Gly Gly Arg Tyr Ser Val Arg Gly Phe Ser Gly Glu
       35       40       45
Glu Thr Leu Arg Gly Asp Ser Gly Tyr Tyr Val Gln Asn Glu Trp Ala
       50       55       60
Leu Pro Phe Arg Lys Gln Gln Ile Thr Pro Tyr Val Gly Ile Asp Ile

```

```

65              70              75              80
Gly His Val Trp Gly Pro Ser Thr Glu Thr Gln Leu Gly Asn Thr Leu
      85              90              95
Ile Gly Gly Val Val Gly Val Arg Gly Met Val Gly Asp Asp Val Asn
      100             105             110
Tyr Asp Val Ser Leu Gly Thr Pro Ile Lys Lys Pro Glu Gly Phe Asp
      115             120             125
Thr Asp Thr Arg
      130

<210> 2569
<211> 330
<212> DNA
<213> Homo sapiens

<400> 2569
ctgctgctg gtgctgatgt gtccatgatt ggccagttcg gcgtcgggtt ctactctgcc
60
tatcctcgctg ccgatatagagt tgtcgtgacc accaagcacac acgatgacga gcagtacgtg
120
tgggagtgccc aagcggggcgg gtcgttcact gttactcgtg acacgtcagg ggagcagctt
180
ggcaggggcca ctaagatcac actgttcctc aaggacgatc agctggagta ccttgaggag
240
cgtcgccctca aggatctggt caagaagcac tctgagttca tcagctaccc catctccctg
300
tggactgaaa agacaacaga gaaggaaatt
330

<210> 2570
<211> 110
<212> PRT
<213> Homo sapiens

<400> 2570
Leu Ala Ala Gly Ala Asp Val Ser Met Ile Gly Gln Phe Gly Val Gly
1      5      10      15
Phe Tyr Ser Ala Tyr Leu Val Ala Asp Arg Val Val Val Thr Thr Lys
      20      25      30
His Asn Asp Asp Glu Gln Tyr Val Trp Glu Ser Gln Ala Gly Gly Ser
      35      40      45
Phe Thr Val Thr Arg Asp Thr Ser Gly Glu Gln Leu Gly Arg Gly Thr
      50      55      60
Lys Ile Thr Leu Phe Leu Lys Asp Asp Gln Leu Glu Tyr Leu Glu Glu
      65      70      75      80
Arg Arg Leu Lys Asp Leu Val Lys Lys His Ser Glu Phe Ile Ser Tyr
      85      90      95
Pro Ile Ser Leu Trp Thr Glu Lys Thr Thr Glu Lys Glu Ile
      100     105     110

<210> 2571
<211> 335
<212> DNA
<213> Homo sapiens

```

```

<400> 2571
gaattcgcca atgtttttctc cggatatgggc tccacagtaa cccctatcgg ccgctcccc
60
gtgctccctta aacatctcga taatgaacta tctgagctct ttactgagat cgcctgggag
120
aaatgggatg tccgttttagg gcagggaacg acagctatcg accaggtgga gaagcagcgt
180
gaagatgggt cttcctactt cgaaccacc attacatttg aagacggcag cactgttacc
240
ggtgacgcat tcttagttgc taccggacgt acccctaaca ccgaccgcct tggcctcgac
300
aatggttccg gtgtgaagg tgaaggggga cgcgt
335

```

```

<210> 2572
<211> 111
<212> PRT
<213> Homo sapiens

```

```

<400> 2572
Glu Phe Ala Asn Val Phe Ser Gly Met Gly Ser Thr Val Thr Leu Ile
1 5 10 15
Gly Arg Ser Pro Val Leu Leu Lys His Leu Asp Asn Glu Leu Ser Glu
20 25 30
Leu Phe Thr Glu Ile Ala Arg Glu Lys Trp Asp Val Arg Leu Gly Gln
35 40 45
Gly Thr Thr Ala Ile Asp Gln Val Glu Lys Gln Arg Glu Asp Gly Ser
50 55 60
Ser Tyr Phe Glu Thr Thr Ile Thr Phe Glu Asp Gly Ser Thr Val Thr
65 70 75 80
Gly Asp Ala Phe Leu Val Ala Thr Gly Arg Thr Pro Asn Thr Asp Arg
85 90 95
Leu Gly Leu Asp Asn Gly Ser Gly Val Lys Val Glu Arg Gly Arg
100 105 110

```

```

<210> 2573
<211> 460
<212> DNA
<213> Homo sapiens

```

```

<400> 2573
gtcgacaagt accggggcat tgtggttatg gggacggtag atctgggccc tctcgtcagg
60
gccggatcca taccggaccg ttctgtcagg gtggtcggac atcgacgaca ccgcagatgc
120
cgagacgacg ttgatacgtc caccggcgcg gtccgtgate cagccgtcg tcgcggttgc
180
cgccactggc acgatgaggg ccatcaccga gaagagaacg gccaccactc gcagaccacc
240
tcgtcccaga agagcgagga cgaaggcgat gacggcgatg accagagccg gtacagccaa
300
cgatcccacc agaacggagg agatgaagg gagggcattg tgtgagggga ggcgcggc
360

```

cactgaccac gccagtaccg gcagggtcag gatcagcccg acgagaccgg aagtgatgcg
 420
 tagccaggaa tgacgggagg ttttcgtgtc agccacgcgt
 460

<210> 2574
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 2574
 Met Gly Thr Val Asp Leu Gly Arg Leu Val Arg Ala Gly Ser Ile Pro
 1 5 10 15
 Asp Arg Phe Val Arg Val Val Gly His Arg Arg His Arg Arg Cys Arg
 20 25 30
 Asp Asp Val Asp Thr Ser Thr Gly Ala Val Arg Asp Pro Arg Arg Arg
 35 40 45
 Arg Arg Cys Arg His Trp His Asp Glu Gly His His Arg Glu Glu Asn
 50 55 60
 Gly His His Ser Gln Thr Thr Ser Ser Gln Lys Ser Glu Asp Glu Gly
 65 70 75 80
 Asp Asp Gly Asp Asp Gln Ser Arg Tyr Ser Gln Arg Ser His Gln Asn
 85 90 95
 Gly Gly Asp Glu Gly Glu Gly Ile Val
 100 105

<210> 2575
 <211> 3954
 <212> DNA
 <213> Homo sapiens

<400> 2575
 nngacagggg ggaagggagg ggagccagca gggaggagga ggccagggcc cgccccacag
 60
 ccactctcgc gcctccgaac agccacaggg gcaaaagccct gtcacccccca ggatccgggtc
 120
 atcaggggaaa gaggacaggg agaccagaag agggccagct gggacgaggg ggcggagcgc
 180
 caggaggcaa cttctgagac gcagctcctg agagggggcag ggaccaggcg cgggaggcca
 240
 gaggggggcac agagaacaaa cccctcaga agtgaagagg agagcggagag gaaccgagag
 300
 gggacggaca ggagctgagg aggaaagagg agggggagagg ggtcaggcca ggcagccaag
 360
 gagaagacgt gtggccgggg gctatcagaa ggaaactggg acggacgggc cgggctcggg
 420
 ctgtctctgt gagcagcagc atccccgggg ccggcagagg cgccagtggc tgggcccggat
 480
 gagtctctga gggccactgt ggagcgcccc gccatggccc ccgcacacct ctggagctgc
 540
 tacctctgct gctgtgtgac ggcagctgca gggggcgcca gctaccctcc tcgaggtttc
 600
 agcctctaca cagggtccag tggggccctc agccccgggg ggccccaggc ccagattgcc
 660

ccccggccag ccagccgcca caggaaactgg tgtgectacg tgggtgacccg gacagtggagc
720
tgtgtcccttg aggatggagt ggagacatat gtcaagtacc agccttgtgc ctggggccag
780
cccagtgtc cccaaagcat catgtaccgc cgcttcctcc gccctcgcta ccgtgtggcc
840
tacaagacag tgaccgacat ggagtggagg tgctgtcagg gtatatggggg cgtactgt
900
gtcgagagtc ccgctccagc gctggggcct gcgtcttcca caccacggcc cctggcccgg
960
cctgcccccc ccaacctctc tggctccagt gcaggcagcc ccctcagtgg actgggggga
1020
gaaggtcctg gggagtccga gaaggtgcag cagctggagg aacaggtgca gaggctgacc
1080
aaggagctgc aaggcctgcg gggcgtcctg caaggactga gggggcgccct ggcagaggat
1140
gtgcagaggg ctgtggagac ggccttcaac gggaggcagc agccagctga cgcggtgccc
1200
cgccctgggg tgcatgaaac cctcaatgag atccagcacc agctgcagct cctggacacc
1260
cgctcttcca cccacgacca gtagctgggt caacctcaaca accatcatgg cggcagcagc
1320
agcagtgggg gacagcaggg cccagcccca gcctcagccc ctccggggccc cagtggaggag
1380
ctgctgcggc agctggagca gcggttgtag gactctgtct ccgtgtgcct ggcggggcta
1440
gatggcttcc gccggcagca gcaggaggac agggagcggc tgcgagcgat gggaaagctg
1500
ctggcctcgg tggaggagcg gcaacggcac ctgcagggc tggcggggg cgcgagggcc
1560
cctcaggaat gctgctctcc agagctgggc cggcgactgg cagagctgga ggcgaggctg
1620
gatgtcgtgg ccggctcagt gacagtgtct agtgggcggc gaggcacaga gctggaggga
1680
gccgcggggc agggaggcca cccccaggc tacaccagct tggcctcccg cctgtctcgc
1740
ctggaggacc gcttcaactc caccctgggc ccttcggagg agcaggaggga gactggccct
1800
ggggctcctg gggggctgag ccactggctg cctgtgcccc ggggcccact agagcagttg
1860
ggggggctgc tggccaatgt gagcggggag ctgggggggc ggttggatct gttggaggag
1920
cagggtggcag gggccatgca ggcctgcggg cagctctgct ctggggcccc tggggaggcag
1980
gactctcaag tcagcgagat cctcagtgcc ttggagcgca ggggtgctgga cagtggggg
2040
cagctgcggc tgggtgggctc ggcctgcac acggtgggaag cagcggggga gggccggcag
2100
gccacgctgg agggattaca agaggttggt ggcggctcc aggatcgtgt ggatccccag
2160
gatgagacag ctgcagagt cacaactcgg ctgaatctca ctgcccccg gctagcccaa
2220
ctggaggggc tgctgcaggc ccatggggat gagggtctgt gggcctgttg cggagtccaa
2280

gaggaactag gccgccttcg ggatgggtgtg gagcgctgct cctgccccct gtgcctcct
2340
cggggtcctg gggctgggcc aggtgttggg ggcacagcc gtgggcccc gtgcggcttc
2400
agcgtgtttg ggggcagctc aggcctcagcc ctgcaggccc tgcaaggaga gctctctgag
2460
gtattctca gcttcagctc cctcaatgac tctactgaatg agctccagac cactgtggag
2520
ggccaggcgg ctgatctggc tgacctgggg gcaaccaagg accgtatcat ttctgagatt
2580
aacaggctgc agcaggaggc cacagagcat gctacagaga gtgaagagcg ctccgaggc
2640
ctagaggagg gacaagcaca ggcggccagc tgccccagct tagaggggcg attgggcctg
2700
cttgagggtg tctgtgaacg gttggacact gtggctgggg gactgcaggc cctgcgcgag
2760
ggcctttcca gacacgtggc tgggctctgg gctgggctcc gggaaaccaa caccaccagc
2820
cagatgcagg cagccctgct ggagaagctg gtcgggggac aggcgggcct gggcaggcgg
2880
ctgggtgccc ttaacagctc cctgcagctc ctggaggacc gtctgcacca gctcagcctg
2940
aaggacctca ctgggcctgc agsagaggct gggccccacg ggccctcctg gctgcaggga
3000
ccccaggcc ctgctggacc tccaggatca ccaggcaagg acgggcaaga gggccccatc
3060
gggccaccag gtccctcaagg tgaacaggga gtggaggggg caccagcagc cctctgtccc
3120
caagtggcat ttctagctgc tctgagtttg ccccggtctg aaccaggcac ggtccctctc
3180
gacagagtcc tgctcaatga tggaggctat tatgatccag agacaggcgt gttcacagcg
3240
ccactggctg gacgctactt gctgagcgcg gtgctgactg ggcaccggca cgagaaagtg
3300
gaggcgctgc tgtcccgtcc caaccagggc gtggcccgcg tagactccgg ttggtacgag
3360
cctgaggggc tggagaataa gccggtggcc gagagccaga ccagcccggg caccctgggc
3420
gtcttcagcc tcatcctgcc gctgcaggcc ggggacacgg tctgcgtcga cctggtcatg
3480
gggcagctgg cgcactcgga ggagccgctc accatcttca gcggggccct gctctatggg
3540
gaccagagc ttgaacacgc gtagactggg gtcccgccg acgtgtctac gtgcgctgaa
3600
gagacagcgg gggcgcgagg ctctgggggt ctgcctgag acggggcacc tagccctggg
3660
cgagcgccgc acccgggccc gcagcgccac cgccgccaga ggggcctctc cccacgccg
3720
gggcgcgcgg gctcaggggg gctcggggcc gcccatgcag acttttggcc ttggcgagtc
3780
cccaagaac ccctccaggc ccggcctgcg gaggagccga tctcgcacc ctccgctccc
3840
tccactggcc ctccaggtcg attcctggg ctccaggctc ccccgcgcg gcgcgccc
3900

ccgccatact aaacgatcga ggaataaaga cacttggttt ttctaaaaaa aact
3954

<210> 2576

<211> 1016

<212> PRT

<213> Homo sapiens

<400> 2576

Met	Ala	Pro	Arg	Thr	Leu	Trp	Ser	Cys	Tyr	Leu	Cys	Cys	Leu	Leu	Thr
1				5					10					15	
Ala	Ala	Ala	Gly	Ala	Ala	Ser	Tyr	Pro	Pro	Arg	Gly	Phe	Ser	Leu	Tyr
			20					25					30		
Thr	Gly	Ser	Ser	Gly	Ala	Leu	Ser	Pro	Gly	Gly	Pro	Gln	Ala	Gln	Ile
			35				40					45			
Ala	Pro	Arg	Pro	Ala	Ser	Arg	His	Arg	Asn	Trp	Cys	Ala	Tyr	Val	Val
	50					55					60				
Thr	Arg	Thr	Val	Ser	Cys	Val	Leu	Glu	Asp	Gly	Val	Glu	Thr	Tyr	Val
65					70					75				80	
Lys	Tyr	Gln	Pro	Cys	Ala	Trp	Gly	Gln	Pro	Gln	Cys	Pro	Gln	Ser	Ile
				85					90					95	
Met	Tyr	Arg	Arg	Phe	Leu	Arg	Pro	Arg	Tyr	Arg	Val	Ala	Tyr	Lys	Thr
			100					105					110		
Val	Thr	Asp	Met	Glu	Trp	Arg	Cys	Cys	Gln	Gly	Tyr	Gly	Gly	Asp	Asp
			115				120						125		
Cys	Ala	Glu	Ser	Pro	Ala	Pro	Ala	Leu	Gly	Pro	Ala	Ser	Ser	Thr	Pro
	130					135					140				
Arg	Pro	Leu	Ala	Arg	Pro	Ala	Arg	Pro	Asn	Leu	Ser	Gly	Ser	Ser	Ala
145					150					155					160
Gly	Ser	Pro	Leu	Ser	Gly	Leu	Gly	Gly	Glu	Gly	Pro	Gly	Glu	Ser	Glu
				165					170					175	
Lys	Val	Gln	Gln	Leu	Glu	Glu	Gln	Val	Gln	Ser	Leu	Thr	Lys	Glu	Leu
			180						185					190	
Gln	Gly	Leu	Arg	Gly	Val	Leu	Gln	Gly	Leu	Ser	Gly	Arg	Leu	Ala	Glu
			195				200					205			
Asp	Val	Gln	Arg	Ala	Val	Glu	Thr	Ala	Phe	Asn	Gly	Arg	Gln	Gln	Pro
	210					215					220				
Ala	Asp	Ala	Ala	Ala	Arg	Pro	Gly	Val	His	Glu	Thr	Leu	Asn	Glu	Ile
225					230					235					240
Gln	His	Gln	Leu	Gln	Leu	Leu	Asp	Thr	Arg	Val	Ser	Thr	His	Asp	Gln
			245					250						255	
Glu	Leu	Gly	His	Leu	Asn	Asn	His	His	Gly	Gly	Ser	Ser	Ser	Ser	Gly
			260					265					270		
Gly	Ser	Arg	Ala	Pro	Ala	Pro	Ala	Ser	Ala	Pro	Pro	Gly	Pro	Ser	Glu
		275					280					285			
Glu	Leu	Leu	Arg	Gln	Leu	Glu	Gln	Arg	Leu	Gln	Glu	Ser	Cys	Ser	Val
			290			295					300				
Cys	Leu	Ala	Gly	Leu	Asp	Gly	Phe	Arg	Arg	Gln	Gln	Gln	Glu	Asp	Arg
305					310					315				320	
Glu	Arg	Leu	Arg	Ala	Met	Glu	Lys	Leu	Leu	Ala	Ser	Val	Glu	Glu	Arg
			325						330					335	
Gln	Arg	His	Leu	Ala	Gly	Leu	Ala	Val	Gly	Arg	Arg	Pro	Pro	Gln	Glu
			340					345					350		
Cys	Cys	Ser	Pro	Glu	Leu	Gly	Arg	Arg	Leu	Ala	Glu	Leu	Glu	Arg	Arg

355	360	365
Leu Asp Val Val Ala Gly Ser Val Thr Val Leu Ser Gly Arg Arg Gly		
370	375	380
Thr Glu Leu Gly Gly Ala Ala Gly Gln Gly Gly His Pro Pro Gly Tyr		
385	390	395
Thr Ser Leu Ala Ser Arg Leu Ser Arg Leu Glu Asp Arg Phe Asn Ser		
405	410	415
Thr Leu Gly Pro Ser Glu Glu Gln Glu Glu Ser Trp Pro Gly Ala Pro		
420	425	430
Gly Gly Leu Ser His Trp Leu Pro Ala Ala Arg Gly Arg Leu Glu Gln		
435	440	445
Leu Gly Gly Leu Leu Ala Asn Val Ser Gly Glu Leu Gly Gly Arg Leu		
450	455	460
Asp Leu Leu Glu Glu Gln Val Ala Gly Ala Met Gln Ala Cys Gly Gln		
465	470	475
Leu Cys Ser Gly Ala Pro Gly Glu Gln Asp Ser Gln Val Ser Glu Ile		
485	490	495
Leu Ser Ala Leu Glu Arg Arg Val Leu Asp Ser Glu Gly Gln Leu Arg		
500	505	510
Leu Val Gly Ser Gly Leu His Thr Val Glu Ala Ala Gly Glu Ala Arg		
515	520	525
Gln Ala Thr Leu Glu Gly Leu Gln Glu Val Val Gly Arg Leu Gln Asp		
530	535	540
Arg Val Asp Ala Gln Asp Glu Thr Ala Ala Glu Phe Thr Leu Arg Leu		
545	550	555
Asn Leu Thr Ala Ala Arg Leu Gly Gln Leu Glu Gly Leu Leu Gln Ala		
565	570	575
His Gly Asp Glu Gly Cys Gly Ala Cys Gly Gly Val Gln Glu Leu		
580	585	590
Gly Arg Leu Arg Asp Gly Val Glu Arg Cys Ser Cys Pro Leu Leu Pro		
595	600	605
Pro Arg Gly Pro Gly Ala Gly Pro Gly Val Gly Gly Pro Ser Arg Gly		
610	615	620
Pro Leu Asp Gly Phe Ser Val Phe Gly Gly Ser Ser Gly Ser Ala Leu		
625	630	635
Gln Ala Leu Gln Gly Glu Leu Ser Glu Val Ile Leu Ser Phe Ser Ser		
645	650	655
Leu Asn Asp Ser Leu Asn Glu Leu Gln Thr Thr Val Glu Gly Gln Gly		
660	665	670
Ala Asp Leu Ala Asp Leu Gly Ala Thr Lys Asp Arg Ile Ile Ser Glu		
675	680	685
Ile Asn Arg Leu Gln Gln Glu Ala Thr Glu His Ala Thr Glu Ser Glu		
690	695	700
Glu Arg Phe Arg Gly Leu Glu Glu Gly Gln Ala Gln Ala Gly Gln Cys		
705	710	715
Pro Ser Leu Glu Gly Arg Leu Gly Arg Leu Glu Gly Val Cys Glu Arg		
725	730	735
Leu Asp Thr Val Ala Gly Gly Leu Gln Gly Leu Arg Glu Gly Leu Ser		
740	745	750
Arg His Val Ala Gly Leu Trp Ala Gly Leu Arg Glu Thr Asn Thr Thr		
755	760	765
Ser Gln Met Gln Ala Ala Leu Leu Glu Lys Leu Val Gly Gly Gln Ala		
770	775	780
Gly Leu Gly Arg Arg Leu Gly Ala Leu Asn Ser Ser Leu Gln Leu Leu		

```

785              790              795              800
Glu Asp Arg Leu His Gln Leu Ser Leu Lys Asp Leu Thr Gly Pro Ala
      805      810      815
Gly Glu Ala Gly Pro Pro Gly Pro Pro Gly Leu Gln Gly Pro Pro Gly
      820      825      830
Pro Ala Gly Pro Pro Gly Ser Pro Gly Lys Asp Gly Gln Glu Gly Pro
      835      840      845
Ile Gly Pro Pro Gly Pro Gln Gly Glu Gln Gly Val Glu Gly Ala Pro
      850      855      860
Ala Ala Pro Val Pro Gln Val Ala Phe Ser Ala Ala Leu Ser Leu Pro
      865      870      875      880
Arg Ser Glu Pro Gly Thr Val Pro Phe Asp Arg Val Leu Leu Asn Asp
      885      890      895
Gly Gly Tyr Tyr Asp Pro Glu Thr Gly Val Phe Thr Ala Pro Leu Ala
      900      905      910
Gly Arg Tyr Leu Leu Ser Ala Val Leu Thr Gly His Arg His Glu Lys
      915      920      925
Val Glu Ala Val Leu Ser Arg Ser Asn Gln Gly Val Ala Arg Val Asp
      930      935      940
Ser Gly Gly Tyr Glu Pro Glu Gly Leu Glu Asn Lys Pro Val Ala Glu
      945      950      955      960
Ser Gln Pro Ser Pro Gly Thr Leu Gly Val Phe Ser Leu Ile Leu Pro
      965      970      975
Leu Gln Ala Gly Asp Thr Val Cys Val Asp Leu Val Met Gly Gln Leu
      980      985      990
Ala His Ser Glu Glu Pro Leu Thr Ile Phe Ser Gly Ala Leu Leu Tyr
      995      1000      1005
Gly Asp Pro Glu Leu Glu His Ala
      1010      1015

```

<210> 2577

<211> 343

<212> DNA

<213> Homo sapiens

<400> 2577

```

acgcgtgaag ggggagggtc atggcctcct gggcctcaag gaggagctgg ggctgggggtg
60
ggggcggtgt gcatcctatcc ccggccgcag ctgatctgga gccatctgta gcgaatgct
120
tgctgagcaa attacgaggg tcaacaggag cagggcagac gcttctccca cctgctggcc
180
agtgttcctt cggtaccgt gcactcagcc ccacagtgc cctgagtgg ataccggccc
240
tgctgcctt gggctctcaa tgggggctcg gggcctcaca gggccagcac gagccacttg
300
ccagggtctc caacagaccc tgagcctggc agtccctggg ccc
343

```

<210> 2578

<211> 100

<212> PRT

<213> Homo sapiens

<400> 2578

```

Met Ala Ser Trp Ala Ser Arg Arg Ser Trp Gly Trp Gly Gly Gly Val
 1             5             10             15
Val His Ser Ser Pro Ala Ala Ala Asp Leu Glu Pro Ser Val Ala Lys
                20             25             30
Cys Leu Leu Ser Lys Leu Arg Gly Ser Thr Gly Ala Gly Gln Thr Leu
          35             40             45
Leu Pro Pro Ala Gly Gln Cys Ser Leu Gly Tyr Arg Ala Leu Ser Pro
          50             55             60
Thr Val Thr Pro Glu Trp Ile Pro Ala Leu Pro Ala Leu Gly Ser Gln
        65             70             75             80
Trp Gly Leu Gly Ala Ser Gln Gly Gln His Glu Pro Leu Ala Arg Val
          85             90             95
Ser Asn Arg Pro
                100

```

<210> 2579

<211> 420

<212> DNA

<213> Homo sapiens

<400> 2579

```

ntcatgatct tcagaagctg tattaatttg gccgcattta tcatcatagt tttttcctat
60
ggaagcatgt tttatagtgt tcatcaaagt gccataacag caactgaaat acggaatcaa
120
gttaaaaaag agatgatcct tgccaaacgt tttttcttta tagtatttac tgatgcatta
180
tgctgggatac ccatttttgt agtgaaattt ctttcactgc ttcaggtaga aataccaggt
240
accataacct cttgggtagt gatttttatt ctgccatta acagtgcctt gaacccaatt
300
ctctatactc tgaccacaag accattttaa gaaatgattc atcgggttttg gtataactac
360
agacaaagaa aatctatgga cagcaaaggt cagaaaacag aggcctggagt gtgctgcgca
420

```

<210> 2580

<211> 140

<212> PRT

<213> Homo sapiens

<400> 2580

```

Xaa Met Ile Phe Arg Ser Cys Ile Asn Leu Ala Ala Phe Ile Ile Ile
 1             5             10             15
Val Phe Ser Tyr Gly Ser Met Phe Tyr Ser Val His Gln Ser Ala Ile
          20             25             30
Thr Ala Thr Glu Ile Arg Asn Gln Val Lys Lys Glu Met Ile Leu Ala
          35             40             45
Lys Arg Phe Phe Phe Ile Val Phe Thr Asp Ala Leu Cys Trp Ile Pro
          50             55             60
Ile Phe Val Val Lys Phe Leu Ser Leu Leu Gln Val Glu Ile Pro Gly
        65             70             75             80
Thr Ile Thr Ser Trp Val Val Ile Phe Ile Leu Pro Ile Asn Ser Ala

```

```

      85              90              95
Leu Asn Pro Ile Leu Tyr Thr Leu Thr Thr Arg Pro Phe Lys Glu Met
      100              105              110
Ile His Arg Phe Trp Tyr Asn Tyr Arg Gln Arg Lys Ser Met Asp Ser
      115              120              125
Lys Gly Gln Lys Thr Glu Ala Gly Val Cys Ser Arg
      130              135              140

<210> 2581
<211> 459
<212> DNA
<213> Homo sapiens

<400> 2581
atgctgtttt cggccactat gccggccccc attatggccc tagcccggtc ccaactgcgt
60
cgtecggtgc acgtccgcgc cgaaggagcc gacaccaga ccacggtgcc cgacaccgag
120
cagtttgat accaggccca ttcctcgac aagattgaga tcattggacg cattctgcag
180
gccaacgacg togaaaaggt cattatcttc tgccgcacca agcgtgcatg ccacggtgtt
240
tctgacgacc togacgacg cggtttcaaa acccgcgcca tccacggtga tctcacgacg
300
gtcgcgctgt aaaaggcgct caagaaattc cgtcatggcg aggcgaccat cctggtggcg
360
accgatgtcg ctgcccgtgg cattgacgtc accggggtgt cccacgtcat caaccatgaa
420
tgtccogaag acgagaaaaa atacgtccac cgcattggt
459

<210> 2582
<211> 153
<212> PRT
<213> Homo sapiens

<400> 2582
Met Leu Phe Ser Ala Thr Met Pro Ala Pro Ile Met Ala Leu Ala Arg
1      5      10      15
Ser Gln Leu Arg Arg Pro Val His Val Arg Ala Glu Gly Ala Asp Thr
20      25      30
Gln Thr Thr Val Pro Asp Thr Gln Gln Phe Val Tyr Gln Ala His Ser
35      40      45
Leu Asp Lys Ile Glu Ile Ile Gly Arg Ile Leu Gln Ala Asn Asp Val
50      55      60
Glu Lys Val Ile Ile Phe Cys Arg Thr Lys Arg Ala Cys Gln Arg Leu
65      70      75      80
Ser Asp Asp Leu Asp Asp Arg Gly Phe Lys Thr Arg Ala Ile His Gly
85      90      95
Asp Leu Thr Gln Val Ala Arg Glu Lys Ala Leu Lys Lys Phe Arg His
100      105      110
Gly Glu Ala Thr Ile Leu Val Ala Thr Asp Val Ala Ala Arg Gly Ile
115      120      125
Asp Val Thr Gly Val Ser His Val Ile Asn His Glu Cys Pro Glu Asp

```

130	135	140
Glu Lys Thr Tyr Val His Arg Ile Gly		
145	150	

<210> 2583
 <211> 7098
 <212> DNA
 <213> Homo sapiens

<400> 2583
 ctgttgccgc gccgggtggg tgcattttaa ttttttcatt cctgaacta tgggttatga
 60
 tatccatact cactgaagac aaaagccac cttttctgcg tcttggtggc atgcatgtgt
 120
 ctcatcatcc ttccaaactt gtggtggaac agggttttct tccctgtctg tgtattttga
 180
 gccagcacag ttacccaaat tgaacttgtc ttctgcttgc gaacgggtgt ggtcattgtg
 240
 agggcgggtc atgaggaggc tgtagccaag gacgaggtgt gtgcggctgt tgcctggacg
 300
 tttgtccaat ccacgttgac atttgaggga tcacagcgtg tgaatatgaa ctcagaggag
 360
 aattggtgaa ttccatcca gtgggcattt tcaaacctcg gtgcagcgcg gaagaatatc
 420
 aggtcctgag atcaccacc cgcgcggcca acagtgcaga gtggccacat ctggtggaag
 480
 aagaaaaaaa tgtagttatt gaattcaate aagtgtttgc atctttcaag ctatcaacaa
 540
 aattccatca agaaagggtc cagttggtct cacagacgta tggatatccg aggagccacc
 600
 taaagatgga gaaatcaagg catagagaga ttaagtgact ttgccacagt cacaagctgg
 660
 agaggaccag gactagagct tagagcgagc cctgactctt gggcctgcgt cctgccagga
 720
 gtacagctgc ctccgttcct aggagagaag acttctctga agatggagggt ggacaccgag
 780
 gagaagcggc atcgcacgcg gtccaaaggg gttcgagttc ccgtggaacc agccatacaa
 840
 gactgttcca gctgtccac ccctggctgt gacggcagtg gtcattgtcag tggcaaatat
 900
 gcaagacaca gaagtgtata tggttgtccc ttggcgaaaa aaagaaaaac acaagataaa
 960
 cagccccagg aacctgctcc taaacgaaag ccatttgcgc tgaagcaga cagctcctca
 1020
 gtggatgagt gtgacgacag tgatgggact gaggacatgg atgagaagga ggaggatgag
 1080
 ggggaggagt actccgagga caatgacgag ccagggggatg aggacgagga ggacgaggag
 1140
 ggggaccggg agggggagga ggagatcgag gaggaggatg aggacgatga cgaggatgga
 1200
 gaagatgtgg aggatgaaga agaggaaagag gaggaggagg aggaggagga agaggaagaa
 1260
 gaaaacgaag accatcaaat gaattgtcac aatactcgaa taatgcaaga cacagaaaag
 1320

gatgataaca atagtgaacga atatgacaat tacgatgaac tgggtggccaa gtcattgtta
1380
aaacctcgga aaatcgctga ggatgcagcc tacccggcca ggactgagtc agaaatgaac
1440
agcaatacct ccaatagctc ggaagacgat agtgacaaaa acgaaaacct gggctggaaa
1500
agtgaagtga gtttagactt agacagtgat gttgttagag aaacagtggga ctcccttaaa
1560
ctattagccc aaggacacgg tgttgtgctc tcagaaaaa tgaatgacag aaattatgca
1620
gacagcatgt cgcagcaaga cagtagaaat atgaattacg tcatgttggg gaagcccatg
1680
aacaacggac tcattggaaaa gatggtggag gagagcagat aggaggtgtg tctgagcagt
1740
ctggagtggt tgaggaatca gtgcttcgac ctggccagga agctcagtgga gaccaacccg
1800
caggagagga atccgcagca gaacatgaac atccgtcagc atgtccggcc agaagaggac
1860
ttcccaggaa ggacgccgga cagaaactac tcggacatgc tgaacctcat gcggtggag
1920
gagcagtgga gcccccggtc gagagtggtt gccagctgtg cgaaggagga tgggtgtcat
1980
gagcgggacg acgataccac ctctgtgaac tcggacaggt ctgaagaggt gttcgacatg
2040
accaagggga acctgaccct gctggagaaa gccatcgctt tggaaacgga aagagcaaa
2100
gccatgaggg agaagatggc catggaagct gggaggaggg acaatatgag gtcatatgag
2160
gaccagtctc cgagacaact tcccggggag gacagaaaac ctaaatccag tgacagccat
2220
gtcaaaaagc catactatgg taaagatccc tcaagaacg aaaagaaaaga gagcaagtgt
2280
ccaacccccg ggtgtgatgg aaccggccac gtaactgggc tgtaccaca tcaccgcagc
2340
ctgtccggat gcccgcaaaa agatagggtc cctccagaaa tccttgccat gcatgaaagt
2400
gtcctcaagt gcccactcc gggctgcagc gggcggggc atgtcaacag caacaggaa
2460
tcccaccgaa gcctctccg atgccgatc gctgcagcag agaaactggc caaggcacag
2520
gaaaagcacc agagctgga cgtgtccaag tccagccagg cctcggaccg cgtgctcagg
2580
ccaatgtgct tgtggaagca gctggagatt cctcagtatg gctacagaaa caatgtcccc
2640
acaaactacg cgcgttccaa cctggccaag gagctcgaga aatattccaa aacctcgttt
2700
gaatacaaca gttacgacaa ccatacttat ggcaagcagc ccatagctcc caagggtcaa
2760
accagggata tatcccccaa aggatatgat gatcggaagc ggtactgcaa ggacccagc
2820
cccagcagca gcagaccag cagctacgag cccagcagca gcagcaacct gagctcggc
2880
gggggcagca gcgcagcag cactgcagc aagagcagct tcgactacac gcacgacatg
2940

gaggcgcccc acatggcggc caccgccatc ctcaacctgt ccacgcgctg ccgcgagatg
3000
ccgcgagaacc tgagcaccaa gccgcaggac ctgtgcgccca cgcggaaccc tgacatggag
3060
gtggatgaga acggggaccct ggacctcagc atgaacaagc agaggccgcg ggacagctgc
3120
tgccccatcc tgacctctct ggagcccatg tccccccagc agcaggcagt gatgaacaac
3180
cgggtgttcc agctgggcga gggcgactgc tgggacttgc ccgtagacta caccaaaaatg
3240
aaaccccgga ggatagacga ggacgagtcc aaagacatta ctccagaaga cttggacca
3300
ttccaggagg ctctagaaga aagacgggtat cccggggagg tgacctccc aagtcccaaa
3360
cccaagtacc ctcatgtcaa ggagagcaaa aaggacttaa taactctgtc tggctgcccc
3420
ctggcggaca aaagcattcg aagtatgctg gccaccagct cccaagaact caagtgcccc
3480
acgcttggtt gtgatgggtc tggacatate accggcaatt atgcttctca tcggagcctt
3540
tcaggttgcc caagagcaaa gaaaagtggc atcaggatag cacagagcaa agaagataaa
3600
gaagatcaag aacccatcag gtgtccggtc cccgggtgcg acggccaggg ccacatcact
3660
gggaagtacg cgteccatcg cagcgccctc ggggtgccct tggcggccaa gagcgagaaa
3720
gacgggtacc tgaatggctc ccagtctctc tggaaatcgg tcaagacgga aggcagtgtc
3780
tgccccacgc caggatgcga cggctcaggc cagctcagcg gcagcttctt cacacaccgc
3840
agcttctcag gatgcccag agccacgtca cggatgaaga aggcaaaagt ttctggagag
3900
cagatgctga ccatcaaaca gcggggccagc aacggtatag aaaatgatga agaaatcaaa
3960
cagtttagatg aagaaatcaa ggagctaaat gaatccaatt ccagatgga agccgatatg
4020
attaaactca gaactcagat taccacgatg gagagcaacc tgaagacat cgaaggagg
4080
aacaagtga ttgagcagca gaacgagtct ctctctccag agctggcgaa cctgagccag
4140
tctctgatcc acagcctggc taacatccag ctgccgcaca tggatccaat caatgaacaa
4200
aatcttgatg cttacgtgac tacttttgacg gaaatgtata caaatcaaga tcgttatcag
4260
agtccagaaa ataaagccct actggaaaaat ataaagcagg ctgtgagagg aattcaggtc
4320
tgaacagctg ctgtagtgat gaaactcttg cttaaaaagg atgctcttg ttttttctg
4380
ctgtaactta ccagaaagtg ttctatatat atttctgttt gaatttgaag cagtgttatg
4440
cttacaagac ttcataatga ttttatgtct tgettttaag atagtacctg cagaatagtt
4500
tttgaatata cccacatctt gtacgtttcc atgtaagctg acatagtggt ctgccatgta
4560

atgtttatag ctgctgatgt atgcacattt ggggtatata ctatttctga agaggttaagc
4620
tgatcaaaat aaatagagtg taaattcttt ttaatgcctt agtgattaaa tgttttagta
4680
ttttgaactg aaatggacac acaaacacac acacgcacac acagaccac agctttgaat
4740
gatcatgttg tggctgagca gccgcttttt agacgttatc attttgcctc atgttggagg
4800
actttatgga atttaagaaa tacattttgt gtgcataattg ttcatagca agaattcggt
4860
gcaaaaaatgc tttatttttg aacaatgctt ggaaatatta tgtgactttt ttgtttgttt
4920
gttttaggag gatgggtgat ggtgggggca ataaatgagg tttttgcat tccaaggaaa
4980
tgccatagtg attaactgta agaaatgaaa taagtaattt attgtaagac aacatcaagc
5040
catggaaact tggcagaaga ttcaaagcag cttaaacagc acttttaaat taactcctaa
5100
gcgttacatg gttgtgacta tggaaactcc agttaagaca ggaacttatc agaggtggac
5160
aacgtgaaga tttccttttc catttttcaat aaactttgga acaaccttct cgtatctccc
5220
ctagagtttc gtgcccctct gaactgtctg ttattgcaat gtagtttatc aacagaattt
5280
gtgtgttttc gatttaagct aaaagataat ttaagaacat ttatttcccc ttttcacttt
5340
aaaaaattat gattattcct attattgtta tgaaccttct tattttacat ttgagggata
5400
aaggcaaatg atttgtgagt cttctagtta ctggaccgag ttttctgctg gatctggttg
5460
gaaggcagct cggtaaaagt tccctcctgc tcccccgcc cgaacttgac tctgaatcag
5520
catttggtcc tattcagagg actcttacca cgacgtttct gttctacact tgggtggaga
5580
ccagttgacc atagagcatt tgcagagcct cattgtttga ttctctgtga ctattctaag
5640
aatgaatgca atcagatttt aaaagtaact aaatataact cagcactttt ttgctttaaa
5700
ctagatcacc ttagacttgt ttataccttc cagatttgat tgttttactc ccaatgaactg
5760
cactatatgt atgcataaga ccacttttga gcgctgtgtt ccccttctg agtagtccct
5820
tgacgcagtg ttgtgttttc tgatgttgac ttgagtcca ttttagtagca tctcttccct
5880
ccatgtcttg atgttatgca ggaagtacag acgtacttta aatttttgtt atgaataaaa
5940
aaaaagatgg gttttgtaaa aataaaaaaa aaatattttt agcagaacag gacttacagg
6000
gtcattgtcc ccacaatgtg ccagtcgact atttgcactt acctgttcc atatatccgt
6060
acggagggtg gcaattcctc gtgtcagtag cettgtgaca ctgaacctgg atggattata
6120
gaggagccct caccgctgat caataatgtt gcaaaaggag actacagggg tctcacgacg
6180

aatattctga tacaatactc aacctcggtat tatatatatg tgtataata tatgtatatc
 6240
 ccagcggcac tttatactgt tcaactgtaca aaagettaca gttttccaca aggactttaa
 6300
 taactagctg ggaagaagacg atgtaattat ttcggggctc tgcggaacct tctctgtaca
 6360
 gcgccccctt tctgtgtgc tattggttgc agctgccatg ctcagaatgc gttttgagag
 6420
 ctgaagcaag gtgcttgtag tcacctgagg ccgtccgtgt ggcccagggc cccagctgcc
 6480
 tttagggccc ccattgttca taacagcata tgcatttccc caccgcgttg tgcctgcagc
 6540
 ttctttgccat atatagtaat gcttttagta gactactaga tagtatcagt tttgattctt
 6600
 tattgttatt acctatgtac aatggaaagg gattttaagc acaaacctgc tgcctcatcta
 6660
 acgttggtac ataactctaa atcaaaagt atctgtgact attatatagg gatcacaaaa
 6720
 gtgtcacata ttgaatgct gaccttctat atggattatt gtgagtcac agagtattatt
 6780
 ataaacttatt gttcatattc atttctaagt taatttaagt aatcatttat taagacagaa
 6840
 tttttgataa actatttatt gtgctctctg tggaaactgaa gtttgattta tttttgtact
 6900
 acacggcatg ggtttgtga cactttaatt ttgctataaa tgtgtggaat cacaagttgc
 6960
 tgtgatactt cttttttaaa ttgtgaactt tgtacaaatt ttgtcatgct ggatgttaac
 7020
 acatcttact ctaataaaac aagggtgttc cactttgtga gcacgaaaaa aaaaaaaaaa
 7080
 aaaaaaaaaa aaaaaaaaaa
 7098

<210> 2584

<211> 1186

<212> PRT

<213> Homo sapiens

<400> 2584

Met	Glu	Val	Asp	Thr	Glu	Glu	Lys	Arg	His	Arg	Thr	Arg	Ser	Lys	Gly
1					5				10					15	
Val	Arg	Val	Pro	Val	Glu	Pro	Ala	Ile	Gln	Glu	Leu	Phe	Ser	Cys	Pro
			20					25						30	
Thr	Pro	Gly	Cys	Asp	Gly	Ser	Gly	His	Val	Ser	Gly	Lys	Tyr	Ala	Arg
			35				40					45			
His	Arg	Ser	Val	Tyr	Gly	Cys	Pro	Leu	Ala	Lys	Lys	Arg	Lys	Thr	Gln
			50			55					60				
Asp	Lys	Gln	Pro	Gln	Glu	Pro	Ala	Pro	Lys	Arg	Lys	Pro	Phe	Ala	Val
			65			70				75				80	
Lys	Ala	Asp	Ser	Ser	Ser	Val	Asp	Glu	Cys	Asp	Asp	Ser	Asp	Gly	Thr
			85					90				95			
Glu	Asp	Met	Asp	Glu	Lys	Glu	Glu	Asp	Glu	Gly	Glu	Glu	Tyr	Ser	Glu
			100					105				110			
Asp	Asn	Asp	Glu	Pro	Gly	Asp	Glu	Asp	Glu	Glu	Asp	Glu	Glu	Gly	Asp

```

      115              120              125
Arg  Glu  Gly  Glu  Glu  Glu  Ile  Glu  Glu  Glu  Asp  Glu  Asp  Asp  Asp  Glu
130
Asp  Gly  Glu  Asp  Val  Glu  Asp  Glu  Glu  Glu  Glu  Glu  Glu  Glu  Glu  Glu
145
Glu  Glu  Glu  Glu  Glu  Glu  Glu  Glu  Asn  Glu  Asp  His  Gln  Met  Asn  Cys  His
165
Asn  Thr  Arg  Ile  Met  Gln  Asp  Thr  Glu  Lys  Asp  Asp  Asn  Asn  Ser  Asp  Asp
180
Glu  Tyr  Asp  Asn  Tyr  Asp  Glu  Leu  Val  Ala  Lys  Ser  Leu  Leu  Asn  Leu
195
Gly  Lys  Ile  Ala  Glu  Asp  Ala  Ala  Tyr  Arg  Ala  Arg  Thr  Glu  Ser  Glu
210
Met  Asn  Ser  Asn  Thr  Ser  Asn  Ser  Leu  Glu  Asp  Asp  Ser  Asp  Lys  Asn
225
Glu  Asn  Leu  Gly  Arg  Lys  Ser  Glu  Leu  Ser  Leu  Asp  Leu  Asp  Ser  Asp
245
Val  Val  Arg  Glu  Thr  Val  Asp  Ser  Leu  Lys  Leu  Leu  Ala  Gln  Gly  His
260
Gly  Val  Val  Leu  Ser  Glu  Asn  Met  Asn  Asp  Arg  Asn  Tyr  Ala  Asp  Ser
275
Met  Ser  Gln  Gln  Asp  Ser  Arg  Asn  Met  Asn  Tyr  Val  Met  Leu  Gly  Lys
290
Pro  Met  Asn  Asn  Gly  Leu  Met  Glu  Lys  Met  Val  Glu  Glu  Ser  Asp  Glu
305
Glu  Val  Cys  Leu  Ser  Ser  Leu  Glu  Cys  Leu  Arg  Asn  Gln  Cys  Phe  Asp
325
Leu  Ala  Arg  Lys  Leu  Ser  Glu  Thr  Asn  Pro  Gln  Glu  Arg  Asn  Pro  Gln
340
Gln  Asn  Met  Asn  Ile  Arg  Gln  His  Val  Arg  Pro  Glu  Glu  Asp  Phe  Pro
355
Gly  Arg  Thr  Pro  Asp  Arg  Asn  Tyr  Ser  Asp  Met  Leu  Asn  Leu  Met  Arg
370
Leu  Glu  Glu  Gln  Leu  Ser  Pro  Arg  Ser  Arg  Val  Phe  Ala  Ser  Cys  Ala
385
Lys  Glu  Asp  Gly  Cys  His  Glu  Arg  Asp  Asp  Thr  Thr  Ser  Val  Asn
405
Ser  Asp  Arg  Ser  Glu  Glu  Val  Phe  Asp  Met  Thr  Lys  Gly  Asn  Leu  Thr
420
Leu  Leu  Glu  Lys  Ala  Ile  Ala  Leu  Glu  Thr  Glu  Arg  Ala  Lys  Ala  Met
435
Arg  Glu  Lys  Met  Ala  Met  Glu  Ala  Gly  Arg  Arg  Asp  Asn  Met  Arg  Ser
450
Tyr  Glu  Asp  Gln  Ser  Pro  Arg  Gln  Leu  Pro  Gly  Glu  Asp  Arg  Lys  Pro
465
Lys  Ser  Ser  Asp  Ser  His  Val  Lys  Lys  Pro  Tyr  Tyr  Gly  Lys  Asp  Pro
485
Ser  Arg  Thr  Glu  Lys  Lys  Glu  Ser  Lys  Cys  Pro  Thr  Pro  Gly  Cys  Asp
500
Gly  Thr  Gly  His  Val  Thr  Gly  Leu  Tyr  Pro  His  His  Arg  Ser  Leu  Ser
515
Gly  Cys  Pro  His  Lys  Asp  Arg  Val  Pro  Pro  Glu  Ile  Leu  Ala  Met  His
530
Glu  Ser  Val  Leu  Lys  Cys  Pro  Thr  Pro  Gly  Cys  Thr  Gly  Arg  Gly  His
535

```


980 985 990
 Ser Gln Phe Ser Trp Lys Ser Val Lys Thr Glu Gly Met Ser Cys Pro
 995 1000 1005
 Thr Pro Gly Cys Asp Gly Ser Gly His Val Ser Gly Ser Phe Leu Thr
 1010 1015 1020
 His Arg Ser Leu Ser Gly Cys Pro Arg Ala Thr Ser Ala Met Lys Lys
 1025 1030 1035 1040
 Ala Lys Leu Ser Gly Glu Gln Met Leu Thr Ile Lys Gln Arg Ala Ser
 1045 1050 1055
 Asn Gly Ile Glu Asn Asp Glu Glu Ile Lys Gln Leu Asp Glu Glu Ile
 1060 1065 1070
 Lys Glu Leu Asn Glu Ser Asn Ser Gln Met Glu Ala Asp Met Ile Lys
 1075 1080 1085
 Leu Arg Thr Gln Ile Thr Thr Met Glu Ser Asn Leu Lys Thr Ile Glu
 1090 1095 1100
 Glu Glu Asn Lys Val Ile Glu Gln Gln Asn Glu Ser Leu Leu His Glu
 1105 1110 1115 1120
 Leu Ala Asn Leu Ser Gln Ser Leu Ile His Ser Leu Ala Asn Ile Gln
 1125 1130 1135
 Leu Pro His Met Asp Pro Ile Asn Glu Gln Asn Phe Asp Ala Tyr Val
 1140 1145 1150
 Thr Thr Leu Thr Glu Met Tyr Thr Asn Gln Asp Arg Tyr Gln Ser Pro
 1155 1160 1165
 Glu Asn Lys Ala Leu Leu Glu Asn Ile Lys Gln Ala Val Arg Gly Ile
 1170 1175 1180
 Gln Val
 1185

<210> 2585

<211> 542

<212> DNA

<213> Homo sapiens

<400> 2585

caatcactcc tccacagaat ttggcctcag ccagcccccac gctcagcatg cccagccctg
 60
 ccaagagccc agggatcgcc tcgctgacag accccaaaac acgggccacg ccaccccgctc
 120
 ctctaggtac ctgtgcccc agtctcaagc atcactccgt gtctccctca catgccttct
 180
 gggcctctag cctcacaaga gctaaagtat gtgagcactt ttctcagccct ttaaacggat
 240
 taagtcatgt catcctcaca aggtgctgt gttttattac ctctgtttca ggtgcaagtc
 300
 atccccggga ggagtgggtg ggatgccgcc tgaccctggg ccacctggct gcagcatctg
 360
 tgttgatgac caccctcctg cctcaggctt tgctcctgaa tgttcttgct ctctaggctc
 420
 gtcgctcctt ggcctgctc ttcttaactc cgttcaagcc cctgggttca cactgccatg
 480
 ctcatcactt caatgacgag gatgtggcg atcccaaat ctctaatcc aagtgcagat
 540
 ct
 542

<210> 2586
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 2586
 Met Pro Ser Pro Ala Lys Ser Pro Gly Ile Ala Ser Leu Thr Asp Pro
 1 5 10 15
 Lys Thr Arg Ala Thr Pro Pro Arg Pro Leu Gly Thr Cys Ala Pro Ser
 20 25 30
 Leu Lys His His Ser Val Ser Pro Ser His Ala Phe Trp Ala Ser Ser
 35 40 45
 Pro Gln Arg Ala Lys Val Cys Glu His Phe Leu Ser Pro Leu Asn Gly
 50 55 60
 Leu Ser His Val Ile Leu Thr Arg Leu Leu Cys Phe Ile Thr Ser Val
 65 70 75 80
 Ser Gly Ala Ser His Pro Arg Glu Glu Trp Trp Gly Cys Arg Leu Thr
 85 90 95
 Leu Gly His Leu Ala Ala Ala Ser Val Leu Met Thr Thr Leu Leu Pro
 100 105 110
 Gln Ala Leu Leu Leu Asn Val Leu Ala Leu
 115 120

<210> 2587
 <211> 435
 <212> DNA
 <213> Homo sapiens

<400> 2587
 nccaatatcc atgcagcgat cccggggcga atgctctcca acatggagtc ccagcttgag
 60
 gccagggcg ctggagaccg catggatgag gtcatgaagg aggtgccgcg cggtcgttaag
 120
 gatgccggct acccgccgct ggtaaccccg tcgtcccaga tcgtgggaac ccaggcggtg
 180
 ttcaacgtct tgatggggcaa tggttcgtac aagaatctca ctgccagatt tgccagacctc
 240
 atgctcggct actacggcaa gccattggc gagctcaatc ctgagatcgt cgagatggcc
 300
 aagaagcaga ccggcaagga gccgatcgac tgccgtcccg ccgacttgct cgagcctgag
 360
 tgggatcagt tggtcgagca ggccaagagt cttgagggct tcgacggctc cgacaggagac
 420
 gttcttacca acgcg
 435

<210> 2588
 <211> 145
 <212> PRT
 <213> Homo sapiens

<400> 2588
 Xaa Asn Ile His Ala Ala Ile Pro Gly Gly Met Leu Ser Asn Met Glu

```

      1           5           10           15
Ser Gln Leu Glu Ala Gln Gly Ala Gly Asp Arg Met Asp Glu Val Met
      20           25           30
Lys Glu Val Pro Arg Val Arg Lys Asp Ala Gly Tyr Pro Pro Leu Val
      35           40           45
Thr Pro Ser Ser Gln Ile Val Gly Thr Gln Ala Val Phe Asn Val Leu
      50           55           60
Met Gly Asn Gly Ser Tyr Lys Asn Leu Thr Ala Glu Phe Ala Asp Leu
      65           70           75           80
Met Leu Gly Tyr Tyr Gly Lys Pro Ile Gly Glu Leu Asn Pro Glu Ile
      85           90           95
Val Glu Met Ala Lys Lys Gln Thr Gly Lys Glu Pro Ile Asp Cys Arg
      100          105          110
Pro Ala Asp Leu Leu Glu Pro Glu Trp Asp Gln Leu Val Glu Gln Ala
      115          120          125
Lys Ser Leu Glu Gly Phe Asp Gly Ser Asp Glu Asp Val Leu Thr Asn
      130          135          140
Ala
145

```

<210> 2589

<211> 366

<212> DNA

<213> Homo sapiens

<400> 2589

```

ccggcgaaga aggacatggc catggtcttc ggcgcgactc attacgtcga cccgacggcc
60
ggcgatccgg ttgagcagat cagagcgctg accagggggc gccggcgctcga tttcgcgac
120
gagggtcgctg gcatcgctga ggtcatggag caggcctact gggcgggcgcg acgcggcgcc
180
acgatcgctc acgtcggggc gctggggcatc gacccaagc tggtcctgcc ggcgaacgac
240
ctgcacggcg gcgccaagac gatcatcgcc tgcgccaacg gattggggcg agtcgcgacc
300
gactatgccca agatgatctc gctggtcgag accggacggc tggacctggg cgggatgatc
360
acgcgt
366

```

<210> 2590

<211> 122

<212> PRT

<213> Homo sapiens

<400> 2590

```

Pro Ala Lys Lys Asp Met Ala Met Val Phe Gly Ala Thr His Tyr Val
      1           5           10           15
Asp Pro Thr Ala Gly Asp Pro Val Glu Gln Ile Arg Ala Leu Thr Arg
      20           25           30
Gly Arg Gly Val Asp Phe Ala Ile Glu Val Val Gly Ile Val Glu Val
      35           40           45
Met Glu Gln Ala Tyr Trp Ala Ala Arg Arg Gly Gly Thr Ile Val Tyr

```

```

      50              55              60
Val Gly Ala Leu Gly Ile Asp Ala Lys Leu Val Leu Pro Ala Asn Asp
65              70              75              80
Leu His Gly Gly Ala Lys Thr Ile Ile Gly Cys Ala Asn Gly Leu Gly
      85              90              95
Ala Val Arg Thr Asp Tyr Ala Lys Met Ile Ser Leu Val Glu Thr Gly
      100             105             110
Arg Leu Asp Leu Gly Gly Met Ile Thr Arg
      115             120

<210> 2591
<211> 341
<212> DNA
<213> Homo sapiens

<400> 2591
acgcgtaaaag gcatgacctc accttatcat cagggtcaca cgtgtgttat tctggggctg
60
agcagcccac gagttgtcca gcaccaggcc aggggtcagt cagcaatgag gacagctcct
120
tcctgtctcca gggcaggccc tgggcagggc aatgctgggg acacgggtggg gagtaggcca
180
cagcttctgt gggggagttc ctatggcagg aggatcatgc ccagcagcgt ggaagagcaa
240
ggggtgaccc tgcactcgag gctcctggga agacggggag ggttgaggtt acatgagggg
300
gaggggtcag ttggtgcatt cacagaacag cagggtggcc a
341

<210> 2592
<211> 109
<212> PRT
<213> Homo sapiens

<400> 2592
Met Thr Ser Pro Tyr His Gln Gly His Thr Cys Val Ile Leu Gly Leu
1              5              10              15
Ser Ser Pro Arg Val Val Gln His Gln Ala Arg Gly Gln Ser Ala Met
20              25              30
Arg Thr Ala Pro Ser Cys Ser Arg Ala Gly Pro Gly Gln Gly Asn Ala
35              40              45
Gly Asp Thr Val Gly Ser Arg Pro Gln Leu Leu Trp Gly Ser Ser Tyr
50              55              60
Gly Arg Arg Ile Met Pro Ser Ser Val Glu Glu Gln Gly Val Thr Leu
65              70              75              80
His Ser Arg Leu Leu Gly Arg Arg Gly Gly Leu Arg Leu His Glu Gly
85              90              95
Glu Gly Ser Val Gly Ala Phe Thr Glu Gln Gln Gly Gly
100             105

<210> 2593
<211> 501
<212> DNA
<213> Homo sapiens

```


<400> 2593
 cgcgtaaggc caccagaaga tttttatgca cagattccgt tgcttcgaga gctaatttcg
 60
 gcgctttcat ggggttttat ggaggtggat gaatatgagg cggatgatat tateggtacc
 120
 ttggcgcc aagcggatga agcgggggat tatatgactt atattgtgtc ttccgacctc
 180
 gatatgctgc aaatcgtaga tgaaacacc aagatgtatc gaattctcgc ggggttttcg
 240
 gatctcgagg agatggatac tccagcgatt gaagaaaaat atggaatctt gaagtcgcaa
 300
 tttttggacc tgaaggcgct gaagggggat aattcggata atattccagg cgtaccaggg
 360
 attggtgaga aaaccgcagt gaaactcttg aatgagtatg gtagcttggg ggggatttat
 420
 aatcatatca aggaaatttc gggggcgaca cagaagaaat tgattgctgg acgcaaatca
 480
 gctgagatgt ctcttaagct t
 501

<210> 2594
 <211> 167
 <212> PRT
 <213> Homo sapiens

<400> 2594
 Arg Val Arg Pro Pro Glu Asp Phe Tyr Ala Gln Ile Pro Leu Leu Arg
 1 5 10 15
 Glu Leu Ile Ser Ala Leu Ser Trp Gly Phe Met Glu Val Asp Glu Tyr
 20 25 30
 Glu Ala Asp Asp Ile Ile Gly Thr Leu Ala Arg Gln Ala Asp Glu Ala
 35 40 45
 Gly Asp Tyr Met Thr Tyr Ile Val Ser Ser Asp Leu Asp Met Leu Gln
 50 55 60
 Ile Val Asp Glu Asn Thr Lys Met Tyr Arg Ile Leu Arg Gly Phe Ser
 65 70 75 80
 Asp Leu Glu Glu Met Asp Thr Pro Ala Ile Glu Glu Lys Tyr Gly Ile
 85 90 95
 Leu Lys Ser Gln Phe Leu Asp Leu Lys Ala Leu Lys Gly Asp Asn Ser
 100 105 110
 Asp Asn Ile Pro Gly Val Pro Gly Ile Gly Glu Lys Thr Ala Val Lys
 115 120 125
 Leu Leu Asn Glu Tyr Gly Ser Leu Glu Gly Ile Tyr Asn His Ile Lys
 130 135 140
 Glu Ile Ser Gly Ala Thr Gln Lys Lys Leu Ile Ala Gly Arg Glu Ser
 145 150 155 160
 Ala Glu Met Ser Leu Lys Leu
 165

<210> 2595
 <211> 928
 <212> DNA
 <213> Homo sapiens

```

<400> 2595
agatcttcca gatgaacaa tgatcaatta agacacgagg cgacatgggt gccctgcct
60
caccceccag ggatacctgt aatacctgct tcccacttca tgggctacaa tctcatgctg
120
gtcacaattt ctggggctca ctcatataac accaacaagt gggatatattg tgaagaactt
180
cgcttcgggg agcttgaaga agtcaaggcc agagctgctc agatggaaaa gaccatgcgg
240
tggttggtcgg actgcactgc caactggaga gaaaaatgga gtaaatgtcg agctgaagg
300
aacagtgccg gaaaggaagg aagacaactc agaataaac tagagatggc gatgaagaa
360
tcggatccac tgaacacaga acagagtgtt ccacttcaga aggaggcatt agaagcta
420
gttaccaggg atctgaagct tctgggcttc gtagaagaat cctgtgaaca tacagacca
480
ttcaattga gttcacaagt gcatgagtct atcagagagt atttggtaaa aagacaattt
540
tctacaaagg aggacacaaa taataaggaa caagggtgtg tttattgatc tctaaaatta
600
agtgaggaga tgaagcccaa tctagatggt gttgatttat tcaacaatgg tggttctgga
660
aacggtgaaa cgaaaactgg gctgagactg aaagcaataa atctgccttt ggaaaatgaa
720
gtaactgaaa tttcagcttt gcaggtgcac ttggatgaat tccaaaaaat cttatggaag
780
gaaagagaaa tgcgcacagc ttgggaaaaa gaaatagaga gactggagtc ggctttgtct
840
ctgtggaagt ggaagtatga agaactgaaa gaatcaaaagc caaaaaatgt gaaagagttt
900
gacattcttc ttggtcaaca taatgatg
928

```

```

<210> 2596
<211> 309
<212> PRT
<213> Homo sapiens

```

```

<400> 2596
Arg Ser Ser Arg Cys Asn Asn Asp Gln Leu Arg His Ala Ala Thr Trp
1 5 10 15
Trp Pro Leu Pro His Pro Pro Gly Ile Pro Val Ile Pro Ala Ser His
20 25 30
Phe Met Gly Tyr Asn Leu Met Leu Val Thr Ile Ser Gly Ala His Ser
35 40 45
Tyr Asn Thr Asn Lys Trp Asp Ile Cys Glu Glu Leu Arg Leu Arg Glu
50 55 60
Leu Glu Glu Val Lys Ala Arg Ala Ala Gln Met Glu Lys Thr Met Arg
65 70 75 80
Trp Trp Ser Asp Cys Thr Ala Asn Trp Arg Glu Lys Trp Ser Lys Val
85 90 95
Arg Ala Glu Arg Asn Ser Ala Gly Lys Glu Gly Arg Gln Leu Arg Ile

```

```

      100              105              110
Lys Leu Glu Met Ala Met Lys Glu Ser Asp Pro Leu Lys Gln Lys Gln
115              120              125
Ser Leu Pro Leu Gln Lys Glu Ala Leu Glu Ala Asn Val Thr Gln Asp
130              135              140
Leu Lys Leu Pro Gly Phe Val Glu Glu Ser Cys Glu His Thr Asp Gln
145              150              155              160
Phe Gln Leu Ser Ser Gln Met His Glu Ser Ile Arg Glu Tyr Leu Val
165              170              175
Lys Arg Gln Phe Ser Thr Lys Glu Asp Thr Asn Asn Lys Glu Gln Gly
180              185              190
Val Val Ile Asp Ser Leu Lys Leu Ser Glu Glu Met Lys Pro Asn Leu
195              200              205
Asp Gly Val Asp Leu Phe Asn Asn Gly Gly Ser Gly Asn Gly Glu Thr
210              215              220
Lys Thr Gly Leu Arg Leu Lys Ala Ile Asn Leu Pro Leu Glu Asn Glu
225              230              235              240
Val Thr Glu Ile Ser Ala Leu Gln Val His Leu Asp Glu Phe Gln Lys
245              250              255
Ile Leu Trp Lys Glu Arg Glu Met Arg Thr Ala Leu Glu Lys Glu Ile
260              265              270
Glu Arg Leu Glu Ser Ala Leu Ser Leu Trp Lys Trp Lys Tyr Glu Glu
275              280              285
Leu Lys Glu Ser Lys Pro Lys Asn Val Lys Glu Phe Asp Ile Leu Leu
290              295              300
Gly Gln His Asn Asp
305

```

<210> 2597

<211> 631

<212> DNA

<213> Homo sapiens

<400> 2597

```

ccatgggtgg gaatgcaaga gacacactct agacttacta gaggagcaag agcaggactt
60
ggctgcacct cgagctgagg gttagcagga attaggagat aacagtagaa tagggctaga
120
ctgaaaaggc ctttgatgcc aggttaggaa atttacattt tatccacaaa atccaaatcc
180
tcctttaata atgagatgtc tttaacagtt tttgggcaag agtggtatgg ctgacctggt
240
gtcctgggaa ggaactgtgt ggggatgggt tgcaggactt acctagggtg ggaaggcac
300
aagcagcatg gggctgtggc agctaccaga ggtaaggga catttcaggg aaagacttgg
360
caggacaaga ccttccttgg atggatggat gaataccaga aacagggaacc caagagaaa
420
gccgagtttc atagggagag aagatgggtc atgtatgagg catgttgagc ttgtactgat
480
ggtagagacgt ccagtcgaca gtactaccca ctggccagtg agaaatgtgg gaccagggtt
540
caggaggaaa ctggggccgg aaatgagcat ttggaaggcg ccagggtgga agcgggtggt
600

```

tcactccacg agtgctattt cacttaacgcg t
631

<210> 2598

<211> 108

<212> PRT

<213> Homo sapiens

<400> 2598

Met	Gly	Leu	Trp	Gln	Leu	Pro	Glu	Val	Lys	Gly	His	Phe	Arg	Glu	Arg
1				5					10					15	
Leu	Gly	Arg	Thr	Arg	Pro	Ser	Leu	Asp	Gly	Trp	Met	Asn	Thr	Arg	Asn
		20						25					30		
Arg	Asp	Pro	Arg	Glu	Arg	Pro	Ser	Phe	Ile	Gly	Arg	Glu	Asp	Gly	Ser
	35					40					45				
Cys	Met	Arg	His	Val	Glu	Leu	Val	Leu	Met	Val	Arg	Arg	Pro	Val	Asp
	50					55				60					
Ser	Thr	Thr	His	Trp	Pro	Val	Arg	Asn	Val	Gly	Pro	Gly	Phe	Arg	Arg
65				70					75					80	
Lys	Leu	Gly	Pro	Glu	Met	Ser	Ile	Trp	Lys	Ala	Pro	Gly	Trp	Lys	Arg
				85					90					95	
Val	Val	His	Ser	Thr	Ser	Ala	Ile	Ser	Leu	Thr	Arg				
				100					105						

<210> 2599

<211> 356

<212> DNA

<213> Homo sapiens

<400> 2599

nagatcttat acagggacgt gatgttggag aactactgga accttgtttc tctgggactgt
60
tgtcattttg atatgaatat tatctccatg ttggaggaag ggaaagagcc ctggactgtg
120
aagagctgtg tgaataatgc aagaaaacca agaacgcggg aatgtgtcaa aggcgtgtgc
180
acagatatcc ctctaaatg tacaatcaag gatttgcac caaaagagaa gagcagtaca
240
gaagcagtat tccacacagt ggtgttgtaa agacacgaaa gccttgacat tgaagacttt
300
tccttcaagg aaccccagaa aaatgtgcat gattttgagt gtcaatggag agatgn
356

<210> 2600

<211> 118

<212> PRT

<213> Homo sapiens

<400> 2600

Xaa	Ile	Leu	Tyr	Arg	Asp	Val	Met	Leu	Glu	Asn	Tyr	Trp	Asn	Leu	Val
1				5					10					15	
Ser	Leu	Gly	Leu	Cys	His	Phe	Asp	Met	Asn	Ile	Ile	Ser	Met	Leu	Glu
		20					25					30			
Glu	Gly	Lys	Glu	Pro	Trp	Thr	Val	Lys	Ser	Cys	Val	Lys	Ile	Ala	Arg

```

      35              40              45
Lys Pro Arg Thr Arg Glu Cys Val Lys Gly Val Val Thr Asp Ile Pro
  50              55              60
Pro Lys Cys Thr Ile Lys Asp Leu Leu Pro Lys Glu Lys Ser Ser Thr
  65              70              75              80
Glu Ala Val Phe His Thr Val Val Leu Glu Arg His Glu Ser Pro Asp
      85              90              95
Ile Glu Asp Phe Ser Phe Lys Glu Pro Gln Lys Asn Val His Asp Phe
      100              105              110
Glu Cys Gln Trp Arg Asp
      115

```

<210> 2601

<211> 329

<212> DNA

<213> Homo sapiens

<400> 2601

```

gcgccgatca tgatctacgg cgacgacgctc acccacctgc tcaccgaaga aggcacgcgc
  60
tacttgatca aggcgcgcttc cctggaagag cgccaagcga tgatcgccgg cggtggtggg
  120
gtcaccgcct tcggcttgcg ccacaacccc aagacactg cgcgcatgcg ccgcaagggc
  180
ttgatcgctt tgcccgaaga cctcggtatc cgccgacccg acgccacccg cgaactgttg
  240
gccgccaaga gcgtggccga cctggtggag tggtcgggtg gcttgtgcaa ccgcccgcgc
  300
aagttcagga gctggtaaat gcgcgcctt
  329

```

<210> 2602

<211> 105

<212> PRT

<213> Homo sapiens

<400> 2602

```

Ala Pro Ile Met Ile Tyr Gly Asp Asp Val Thr His Leu Leu Thr Glu
  1              5              10              15
Glu Gly Ile Ala Tyr Leu Tyr Lys Ala Arg Ser Leu Glu Glu Arg Gln
      20              25              30
Ala Met Ile Ala Gly Gly Gly Gly Val Thr Ala Phe Gly Leu Arg His
      35              40              45
Asn Pro Lys Asp Thr Ala Arg Met Arg Arg Glu Gly Leu Ile Ala Leu
      50              55              60
Pro Glu Asp Leu Gly Ile Arg Arg Thr Asp Ala Thr Arg Glu Leu Leu
      65              70              75              80
Ala Ala Lys Ser Val Ala Asp Leu Val Glu Trp Ser Gly Gly Leu Cys
      85              90              95
Asn Pro Pro Ala Lys Phe Arg Ser Trp
      100              105

```

<210> 2603

<211> 423

<212> DNA

<213> Homo sapiens

<400> 2603

tcacgatcca ttgctctacc ctttacgggt gtgcacctac gccacgggtc gtggtcaggga
 60
 gcacgggttc ggtgggtaccg aggtcgaggga cttccctcac gccgttggtc gccgagggga
 120
 ggtttgtgta agtgggtcagg tgggccacga tctgggcaat gatcacctcg gtgaaatcga
 180
 agctctggtt accctgagcg gtccgccaca cgacacggtc cacaccggag accagaccga
 240
 tctcggagat gatcgcgtaa ccttcattgt cgtagaggat cttgcacgca tcgatgatgc
 300
 gcttgatctc cttggcagtg aagatgatct ccatcggggt gttggccgac agatactgac
 360
 cggagctsgt ggtcacctgg gtggaatcca ggtcatccgg aaccgggttc aggttggtccg
 420
 cgg
 423

<210> 2604

<211> 103

<212> PRT

<213> Homo sapiens

<400> 2604

Met Glu Ile Ile Phe Thr Ala Lys Glu Ile Lys Arg Ile Ile Asp Ala
 1 5 10 15
 Cys Lys Ile Leu Tyr Asp Asn Glu Gly Tyr Ala Ile Ile Ser Glu Ile
 20 25 30
 Gly Leu Val Ser Gly Val Asp Arg Val Val Ser Ala Thr Ala Gln Gly
 35 40 45
 Asn Gln Ser Phe Asp Phe Thr Glu Val Ile Ser Ala Gln Ile Val Ala
 50 55 60
 His Leu Thr Thr Tyr His Asn Leu Pro Ser Ala Asn Asn Gly Val Lys
 65 70 75 80
 Glu Val Leu Asp Leu Gly Thr Thr Glu Pro Met Leu Leu Thr Thr Asp
 85 90 95
 Leu Gly Val Gly Ala Gln Pro
 100

<210> 2605

<211> 354

<212> DNA

<213> Homo sapiens

<400> 2605

ngggaggagg ggcacgtcaa aagcgactgt atccagaggg ttgatgtaa acatttttca
 60
 aaacatatgt ggcaaacagc ggggggaggg gatctcacca acgtttttct ccaattcttc
 120
 ttgcatgct gggacctggt ccactttcaa aatgtgtcat ttggaagga aaggaggaa
 180

caactacttg aaaggaatac acgtcagtat gagccctttc tcttcagcag aaggttgccc
 240
 caaagtacct cctctgaggc gagagaaagg agagaggagg agagacagct ttcataaat
 300
 ggggcaccca ggactctagg gagagaggca cgttctcaca aaggcccttt gagc
 354

<210> 2606
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 2606
 Met Ser Lys Ala Thr Val Ser Arg Gly Phe Asp Leu Asn Ile Phe Gln
 1 5 10 15
 Asn Ile Cys Gly Lys Gln Arg Gly Glu Gly Ile Ser Pro Thr Phe Phe
 20 25 30
 Ser Thr Ser Ser Leu His Ala Gly Thr Cys Ser Thr Phe Lys Met Cys
 35 40 45
 His Phe Gly Arg Lys Gly Arg Asn Asn Tyr Leu Lys Gly Ile His Val
 50 55 60
 Ser Met Ser Pro Phe Ser Ser Ala Glu Gly Cys Pro Lys Val Pro Pro
 65 70 75 80
 Leu Arg Arg Glu Lys Gly Glu Arg Arg Arg Asp Ser Phe His Gln Met
 85 90 95
 Gly His Pro Gly Leu
 100

<210> 2607
 <211> 297
 <212> DNA
 <213> Homo sapiens

<400> 2607
 tgatcaagaa caatgatacg atatecctaac caacagagga agcaacggaa gttgttgttg
 60
 tttttatgct gttttttttt ttgagaacg gatcttggccc ctgccccccag gccggaatgg
 120
 atgacatgga cagaaccccg tcggaaaaaa gccggaatgt gcaaacccaa attcccacca
 180
 caccggggcc ctaacaattg gatccatccc cnaaaaaaanc cntnncaaaa aaagntaaaa
 240
 actttttttt ttttaaaann anacccccaa aaaaaccaaa aaaaaaaatt taaaaaa
 297

<210> 2608
 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 2608
 Met Ile Arg Tyr Pro Asn Gln Gln Arg Lys Gln Arg Lys Leu Leu Leu
 1 5 10 15
 Phe Leu Cys Cys Phe Phe Phe Leu Arg Thr Asp Leu Ala Pro Ala Pro

```

                20                25                30
Arg Pro Glu Trp Met Thr Trp Thr Glu Pro Arg Arg Lys Lys Ala Gly
      35                40                45
Met Cys Lys Pro Lys Phe Pro Pro His Gly Gly Pro Asn Asn Trp Ile
      50                55                60
His Pro Xaa Lys Xaa Pro Xaa Gln Lys Lys Xaa Lys Thr Phe Phe Phe
65      70                75                80
Leu Xaa Xaa Xaa Pro Gln Lys Asn Gln Lys Lys Lys Phe Lys Lys
      85                90                95

```

<210> 2609

<211> 305

<212> DNA

<213> Homo sapiens

<400> 2609

```

ncgccatcg catgatgtca ggcaaagatg atcctggcat ggcaaaggta tacggttttg
60
ttgacacgtc cctgacgac cctatccgct catctggaga cccatgcgtt ccttggaccc
120
caattgccta cgaaaaaatt ttttttttcc cccccaaaaa acaccccccc ctgcgcatcg
180
tgaaagtctt acctcggggg cgtcatctcg gctgtcatcg tcggcaaatc actcagctgg
240
ccgtaccctt cgtcatcgcc cgggccaccg acctcgacgg cncagcgtgc acggcaacga
300
ccacc
305

```

<210> 2610

<211> 98

<212> PRT

<213> Homo sapiens

<400> 2610

```

Met Met Ser Gly Lys Asp Asp Pro Gly Met Ala Lys Val Tyr Gly Phe
  1                5                10                15
Val Asp Thr Ser Leu Thr Ile Pro Ile Arg Ser Ser Gly Asp Pro Cys
      20                25                30
Val Pro Trp Thr Pro Ile Ala Tyr Glu Lys Ile Phe Phe Phe Pro Pro
      35                40                45
Lys Lys His Pro Pro Leu Ala Ser Val Lys Val Leu Pro Arg Gly Arg
      50                55                60
His Leu Gly Cys His Arg Arg Gln Ile Thr Gln Leu Ala Val Pro Phe
65      70                75                80
Val Ile Ala Arg Ala Thr Asp Leu Asp Gly Xaa Ala Cys Thr Ala Thr
      85                90                95
Thr Thr

```

<210> 2611

<211> 342

<212> DNA

<213> Homo sapiens

<400> 2611
 gccgccgcga tcgacggcga ctccctcgacc agctgggtgt ccagctcgct gcaaacggct
 60
 gtggggcaat ggcttcaggt ggacttcgac catccggatga ccaacgcgac catcacctgt
 120
 acgcccagcg ccaccgtgt cgagctcag gtgcgcgcg tcgaggtggc aacagccaac
 180
 ggcaccagca caattcgctt cgaccagccc ggcaagccgc tgacggcggc gctgccctac
 240
 ggcgagacct catgggtccg gttcaccgcg accggcaccg acgacggctc ccccggcgtg
 300
 cagttcggca tcaccgactt ctccgtgacg cagtagcgac cg
 342

<210> 2612
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 2612
 Ala Ala Ala Ile Asp Gly Asp Ser Ser Thr Ser Trp Val Ser Ser Ser
 1 5 10 15
 Leu Gln Thr Ala Val Gly Gln Trp Leu Gln Val Asp Phe Asp His Pro
 20 25 30
 Val Thr Asn Ala Thr Ile Thr Leu Thr Pro Ser Ala Thr Ala Val Gly
 35 40 45
 Ala Gln Val Arg Arg Val Glu Val Ala Thr Ala Asn Gly Thr Ser Thr
 50 55 60
 Ile Arg Phe Asp Gln Pro Gly Lys Pro Leu Thr Ala Ala Leu Pro Tyr
 65 70 75 80
 Gly Glu Thr Ser Trp Val Arg Phe Thr Ala Thr Gly Thr Asp Asp Gly
 85 90 95
 Ser Pro Gly Val Gln Phe Gly Ile Thr Asp Phe Ser Val Thr Gln Tyr
 100 105 110
 Asp Ala

<210> 2613
 <211> 414
 <212> DNA
 <213> Homo sapiens

<400> 2613
 acgcgtgtgg gttgtgcaca gggcatggct gctctggaca ggctggggcc ctgggcatca
 60
 ttctcctcct ccaaaagggt agggctctgac ctaatggtag ttgtctgat gttttccaga
 120
 tatgccccta ctgggaaggg ccaagtgggc aggcagagtc tggggtggag cgaggtgggg
 180
 ctgggaagca ctctgctttt tctgctgccc cagaacgaat gcaagtctct gcagctttct
 240
 ctctcctgag gaggaggaaa ggagggtctg cctccaggtc tcaggctgag ggaagtgggt
 300

ggagaccctc tagatggcca gcagaggtcg gcctctgtga gaagcttcc ttgcgtgact
 360
 ctggggccccc tcccaggctc tcctcgtggc aggcaggggac ttgggccagc atgg
 414

<210> 2614

<211> 107

<212> PRT

<213> Homo sapiens

<400> 2614

Met	Val	Leu	Cys	Leu	Met	Phe	Ser	Arg	Tyr	Ala	Pro	Thr	Gly	Lys	Gly
1			5					10					15		
Gln	Val	Gly	Arg	Gln	Ser	Leu	Gly	Trp	Ser	Glu	Val	Gly	Leu	Gly	Ser
	20				25							30			
Thr	Pro	Ala	Phe	Leu	Leu	Pro	Gln	Asn	Glu	Cys	Lys	Phe	Trp	Gln	Leu
	35				40						45				
Leu	Leu	Leu	Leu	Gly	Gly	Gly	Lys	Glu	Gly	Ser	Pro	Pro	Gly	Leu	Arg
	50				55					60					
Leu	Arg	Glu	Trp	Ala	Gly	Asp	Pro	Leu	Asp	Gly	Gln	Gln	Arg	Leu	Ala
65			70						75				80		
Ser	Val	Arg	Arg	Leu	Pro	Cys	Val	Thr	Leu	Gly	Pro	Leu	Pro	Gly	Ser
			85					90					95		
Pro	Arg	Gly	Arg	Gln	Gly	Leu	Gly	Pro	Ala	Trp					
	100						105								

<210> 2615

<211> 394

<212> DNA

<213> Homo sapiens

<400> 2615

nnngccgcg ccctcggcgc cagcgcgctt cttttgcgcg ncgacgtcag ccagaaggcg
 60
 gacgtcgacg ccatgctgaa ggaaacgctg gccacgttcg gccacatcga tatcctcgtc
 120
 aacaatgcgg gcgtcacgca tgcggcgcgat ttcctcgacg tgtgcgaaga cgatttcgac
 180
 cgggtcatgc gcattaacct gaaatcgatg ttcctgtgcg gccaggccgc ggcgcgcgag
 240
 atggtcaacg gcaacagcgg ctgcatcatc aacatgtcca cggtgaatgc ggaactggcc
 300
 attccgaacc aggtgccgta cgtggtgtcg aaaggcgcca tcaaccagct gaccaaggtc
 360
 atggccttga acctggcgcc gcacggtgcg cgct
 394

<210> 2616

<211> 131

<212> PRT

<213> Homo sapiens

<400> 2616

Xaa Ala Ala Ala Leu Gly Arg Ser Ala Leu Leu Leu Arg Xaa Asp Val

```

      1           5           10           15
Ser  Gln  Lys  Ala  Asp  Val  Asp  Ala  Met  Leu  Lys  Glu  Thr  Leu  Ala  Gln
      20           25           30
Phe  Gly  His  Ile  Asp  Ile  Leu  Val  Asn  Asn  Ala  Gly  Val  Thr  His  Ala
      35           40           45
Ala  Asp  Phe  Leu  Asp  Val  Cys  Glu  Asp  Asp  Phe  Asp  Arg  Val  Met  Arg
      50           55           60
Ile  Asn  Leu  Lys  Ser  Met  Phe  Leu  Cys  Gly  Gln  Ala  Ala  Ala  Arg  Glu
      65           70           75           80
Met  Val  Lys  Arg  Asn  Ser  Gly  Cys  Ile  Ile  Asn  Met  Ser  Ser  Val  Asn
      85           90           95
Ala  Glu  Leu  Ala  Ile  Pro  Asn  Gln  Val  Pro  Tyr  Val  Val  Ser  Lys  Gly
      100          105          110
Ala  Ile  Asn  Gln  Leu  Thr  Lys  Val  Met  Ala  Leu  Asn  Leu  Ala  Pro  His
      115          120          125
Gly  Ala  Arg
      130

```

```

<210> 2617
<211> 513
<212> DNA
<213> Homo sapiens

```

```

<400> 2617
naccggttg  catcatgctc acagcactgg ggggttcctt ctttttttc ctcctcagaa
60
agacattgtg agatgggaaa tatcatggaa acacctatac ttccggctc ccacttgaac
120
gtcaccttgg gaaatcacia gattctcaat gacgtctcgg tatcattcca agcgggagtt
180
atgcacgcca tacttggtccc caacggttct gggaagacca ccctgggtacg cagtttatgc
240
ggagccctct cccccgagtc ggggagcgct aaattcgatg gaacggatct atccacgatg
300
tcgcgcatct gtatcgcgcg tcgtattgcg atcgtctggc agagcgcgac cgctccctct
360
gacctcaccc tacgtcacct cggtggctac gggagatatg cccacacacc gtgtgggcag
420
ataagggaca ccagcgccga cagccatgtg gaacaagcaa tggagctggc cgatgtcacg
480
tgcttcgccc atcgacgcgt caccactctc tca
513

```

```

<210> 2618
<211> 171
<212> PRT
<213> Homo sapiens

```

```

<400> 2618
Xaa  Arg  Leu  Ala  Ser  Cys  Ser  Gln  His  Trp  Gly  Phe  Pro  Ser  Phe  Phe
      1           5           10           15
Ser  Ser  Ser  Glu  Arg  His  Cys  Glu  Met  Gly  Asn  Ile  Met  Glu  Thr  Pro
      20           25           30
Ile  Leu  Ser  Gly  Ser  His  Leu  Asn  Val  Thr  Leu  Gly  Asn  His  Lys  Ile

```

```

      35              40              45
Leu Asn Asp Val Ser Val Ser Phe Gln Ala Gly Val Met His Ala Ile
  50              55              60
Leu Gly Pro Asn Gly Ser Gly Lys Thr Thr Leu Val Arg Thr Leu Cys
  65              70              75              80
Gly Ala Leu Ser Pro Glu Ser Gly Ser Val Lys Phe Asp Gly Thr Asp
      85              90              95
Leu Ser Thr Met Ser Ala Ser Cys Ile Ala Arg Arg Ile Ala Ile Val
      100              105              110
Trp Gln Ser Ala Thr Ala Pro Ser Asp Leu Thr Val Arg His Leu Val
      115              120              125
Gly Tyr Gly Arg Tyr Ala His Thr Pro Trp Trp Gln Ile Arg Asp Thr
      130              135              140
Ser Ala Asp Ser His Val Glu Gln Ala Met Glu Leu Ala Asp Val Thr
      145              150              155              160
Cys Phe Ala Asp Arg Arg Val Thr Thr Leu Ser
      165              170

```

<210> 2619

<211> 348

<212> DNA

<213> Homo sapiens

<400> 2619

```

nnaaatttcg acgaccttga ggttttccctc aagctgttgc cgcgttcggc anccggggaa
  60
cggatgaacc cgtacaactc ggtgtggagc ggtgtgaccg acggtgacgg gcccgaggaa
  120
cagcacgtca ttttccctga taacggctgt accgacgtgc ttgccgacac ccttggttcg
  180
gaagtgttgc ggtgcacccg gtgtgcttcg tgtatcaata tctgcccggt ttacgagcgg
  240
gcgggcggtc acccttacgg ctcggtgtac cccgggccga ttggtgcggt gctcaatccg
  300
cagctgcggg gcgtggagca tcccgtcgat cgtggtctgc catacgcg
  348

```

<210> 2620

<211> 116

<212> PRT

<213> Homo sapiens

<400> 2620

```

Xaa Asn Phe Asp Asp Leu Glu Val Phe Leu Lys Leu Leu Pro Arg Ser
  1              5              10              15
Ala Xaa Gly Glu Arg Met Asn Pro Tyr Asn Ser Val Trp Ser Gly Val
      20              25              30
Thr Asp Gly Asp Gly Pro Gln Glu Gln His Val Ile Phe Leu Asp Asn
      35              40              45
Gly Arg Thr Asp Val Leu Ala Asp Thr Leu Gly Arg Glu Val Leu Arg
      50              55              60
Cys Ile Arg Cys Ala Ser Cys Ile Asn Ile Cys Pro Val Tyr Glu Arg
      65              70              75              80
Ala Gly Gly His Pro Tyr Gly Ser Val Tyr Pro Gly Pro Ile Gly Ala

```

```

      85              90              95
Val Leu Asn Pro Gln Leu Arg Gly Val Glu His Pro Val Asp Arg Gly
      100              105              110
Leu Pro Tyr Ala
      115

<210> 2621
<211> 1485
<212> DNA
<213> Homo sapiens

<400> 2621
acgcgtgcag gtaaaccaga ggccgtgtga ccagctcagt gctggtttac ggaacaactc
60
ttacttttaa aaattacttg tcccccaaa ttgttgagtg ccgccgtttg gtttcctatg
120
ttttctttcc ctgttttgat ttgctgaag ggagaggttg tgggtggttag gatcagagct
180
ctcctggcat cgtggggag gatttgctgg tgggtggcttc gggctcatgc ccagacacac
240
tcactgcccc gtctgtccaa ggccctccct tcccccttgc tgggtgggagg agctcgtgtg
300
ctccttgccc gcttactgga agggcggttt tcagagctgc agggacaggg tgagcagctg
360
aaggcgtagg agggaagccg gcccccgtc tgcagaagct gcatttcagc tgaatctgtg
420
tttcagcttc agtggtgtgc accgttagcc cctctcctcc cggatggtca tgtttttgtc
480
acattagaga ataaacagcc acacacacat ttttttttcc tttaaaacag taacttggaa
540
atatgaaaag gccagaagga ggagcaaggg ctgtttttctg gagtgggtga ggtgtgtgcc
600
tgcagttgtc attgtcttct ccaccgggct gtcccatctt atttcctgtg gaactgaatc
660
ctctctcctt ccactccttg ggagcccagg tggctccttg ccaccattca ggctttccaa
720
gaagccaacc accttgaga ttttttttct tgaatttcgc tgttttcttc tgcttccctt
780
agataaaaag cagctcaaga gaccttatct tagggatgag aaaaacatgc atattaatc
840
catctgagtg attgtcagtg taaggccttt taaaacaaaa gcaagtctct tgttaggaat
900
tgggtcaaaa tcatctcttt cttaaagccc atcaactccc aggacggttt gagttactca
960
gttacctaag cttgctattc atccaaatca tttcttagag tcaactgtata agggcttatg
1020
agtagctgtg tatgaataaa tattacctgt ctacctcaaa atacacatac tgctgaagca
1080
ttctgtacaa ccgtgtgtta tcacagtgc gttttaagtg taacngtga acttaggcac
1140
tttctgtgtg ggcggaataa gaaaggatnt aacagttaca agcctccaaa ttcagataaa
1200
attaaatcac agttcagatg aaactgaata tcattgtaat aatctcataa tatatatattg
1260

```

taacttgnta gctatctttg aaatcactgn actttgcaat ggtgctaagc ttagatgatt
 1320
 aaatacacag acgggcgagtg ggcgcccgtg tcgatgtctt cagccagtgg tgacctgct
 1380
 ttgttaacgg cggttaacctg acaaaacctc agcagcagaa gtccctattt ttctaggagt
 1440
 ttatcgtgca gacagtcttc actacaggac toggccctgg ggccc
 1485

<210> 2622
 <211> 83
 <212> PRT
 <213> Homo sapiens

<400> 2622
 Met Phe Ser Phe Val Leu Ile Leu Leu Lys Gly Glu Val Val Val
 1 5 10 15
 Val Arg Ile Arg Ala Leu Leu Ala Ser Val Gly Arg Ile Cys Trp Trp
 20 25 30
 Trp Leu Arg Ala His Ala Gln Thr His Ser Leu Pro Arg Leu Ser Lys
 35 40 45
 Ala Ser Pro Ser Pro Leu Leu Val Gly Gly Ala Arg Val Leu Leu Gly
 50 55 60
 Arg Leu Leu Glu Gly Arg Phe Ser Glu Leu Gln Gly Gln Gly Glu Gln
 65 70 75 80
 Leu Lys Gly

<210> 2623
 <211> 3524
 <212> DNA
 <213> Homo sapiens

<400> 2623
 nggatccgaa ttgcggccgg cgtcgactgg agaggacggc gttattttta ttaactggag
 60
 gcgacggcgg ctgcggcgcc ggcgggaccc ccaggcctcc tccgggggtat gaaaatcgcc
 120
 agtgggttcc tgagtggcgg cggaggtacc ggcagtagcg gtggtagcgg ctccggcgcc
 180
 ggtggtagtg gcggcgccgg cggcgccggc agcagcgcca ggagggcaga gatggaaccc
 240
 acctttcccc aggggtatgt tatgttcaac caccgtcttc cccgggtcac cagcttcacc
 300
 cggcggcgcc ggtcgccgcg cctccccccg caatgctgtg taccctctc tacctccgca
 360
 gccccggcgg ctgagccccc cctcccgcca gccccggaca tgactttcaa gaaggagccg
 420
 gcggcgctcag ccggcgccct ccctcgccag aggacctctc ggggggtctt cgactctttg
 480
 gttagcatca aacaggagaa acccgccgat cctgaggagc agcagtccca ccaccaccat
 540
 caccaccacc actatggggg gctgttcgct ggagctgaag agaggtctcc aggcctagga
 600

ggcgggtgaag gggggagtc cggcgctatc caggacctca gtattctcca ccagcatgtc
660
cagcagcaac cagcccagca ccaccgtgac gtattactca gcagcagtag caggactgat
720
gaccaccatg gcaactgagga gccaaagcag gacactaatg tcaaaaaggc aaaaaggcca
780
aagccagaat ctccagggaat caaagccaag aggaagccaa gtgcactcttc caaaccttct
840
ttgggtggag atggagaagg tgccatcctc tcccgaagtc agaaacctca tatctgtgat
900
cactgttagtg ctgctttccg aagctcctat cacctgcgga gacatgtcct cattcataca
960
ggagaaagac ctttccagt gaggcagtg agtatgggtt tcattcagaa atacctacta
1020
cagagacatg agaaaaattca tagtagagag aagccatttg gatgtgatca gtgcagcatg
1080
aagttttatc agaagtacca tatggagaga cacaagagga cacatagtgg agaaaaacca
1140
tataagtgtg acacttgcca acagtatttt tcaaggactg atagattgtt gaagcacagg
1200
cgccatgtg gtgaagtcag agttaaggga gccactagt gagaacctgg gtcatcaaac
1260
cataccaata tgggtaatct ggctgtgttg tctcagggaa atacaagttc ttcaaggaga
1320
aaaaaaagtc caaaaagcat agctattgaa aataaggaa agaaagccgg taaaacaaat
1380
gaatcgcaaa tttcaataa tataaacatg cagagttact cagtagaat gcctaccgtg
1440
tcttccagt gaggcataat tggcactgga atagatgaac tgcagaagag ggtgccaaaa
1500
ttgatcttta agaaaggaag cagaaagaat acagataaaa actaccttaa ctttgtgtca
1560
ccattaccag acatagtagg acagaaatcc ttgtctggaa aaaccaagtgg ctccctggc
1620
atagatcaa ataatagtgt ggagaccatt ggtcttctcc aaagtacaag tggcaaacaa
1680
gttcagataa gtatgaatta tgatgatgcc atgcagtttt caaagaaaag aagatattta
1740
ccaactgcca gcagcaacag tgecttttct ataacgtg gacacatggg ctcccacacg
1800
tctgtcattc agtctgcagg tgtcagtggt ttggacaatg aggcaccatt gtcacttatt
1860
gactcctcag ctctaaatgc tgaattataa tctgtgcatg acaagtctgg aattcctgat
1920
gagggtttac aaagtatttt ggatcaatac tccaacaaat cagaaagcca gaaagaggat
1980
cctttcaata ttgcagaacc acgagtggat ttacacacct caggagaaca ctcagaattg
2040
gttcagaag aaaatttgag ccagggcacc caaacacct caaatgataa agcaagtatg
2100
ttgcagaat actccaata cctccaacag gcttttgaaa aatccactaa tgcaagtttt
2160
actctggac acgggttcca atttgtcagt ttgtcttcac ctctcccaa ccacactttg
2220

ttccagaaa aacaaatata cactacgtct cctttggagt gtggtttcgg ccaatctgtt
 2280
 acctcagtgt tgccatcttc attgccaaag cctccctttg ggatgttgtt tggatctcag
 2340
 ccagggtcttt atttgtctgc tttggatgct acacatcagc agttgacacc ttcccaggag
 2400
 ctggatgac tgatagattc tcagaagaac ttagagactt catcagcctt ccagtcctca
 2460
 tctcagaagt tgactagcca gaaggaacag aaaaacttag agtcttcaac agggctttcag
 2520
 attccatctc aggagtttag tagccagata gatcctcaga aagaCataga gcctagaaca
 2580
 acgtatcaga ttgagaactt tgcaCaagcg tttggttctc agtttaagtc gggcagcagg
 2640
 gtgccaatga cctttatcac taactctaatt ggagaagtgg accatagagt aaggacttca
 2700
 gtgtcagatt tctcagggta tacaatatg atgtctgatg taagtgaacc atgtagtaca
 2760
 agagtaaaaga caccaccag ccagagttaac aggttaaggtc caaaagtgg ccaggcttga
 2820
 ggtcttctaa tgtaattttg ttttattttg agaactctgc cattggaatg tttctacacg
 2880
 atcctattaa gaataatgtg atgccctttc aatgcaactt ttcataattt gtttattttg
 2940
 ttacgtgat ttagctctg tttgtattat gatttttaatt caaaatcaat agattaaaaa
 3000
 tagtttgaca ttcaaatgta caatgtttag caatcaaat tacatgtata gatcgtcagg
 3060
 gaatagccca aatgttttaa acgcaaaaaa aaagacaaaa aaaaacaaaa aaaaaaaaac
 3120
 ctacaaaaaa aactttgttg ctaggattaa ggttatttcta attgctttac tctcaggaaa
 3180
 gtgtaataac gcatgggaat tctgtacgtt atcactgtaa tggaatatcc aatttacaga
 3240
 tagtatgata tacatttcat catttaagta agggatcgaa aacatttcaa attgctctat
 3300
 ctgggctgat agacatttgc tcatttaagt aagggatcga agacatttca aattgctatc
 3360
 tccatctggg ctgatccaaa attctgagat tgttggctac ctatatattg ttgcagcttt
 3420
 taaatgtact ctgaacttcc aaaccacatt cattccagcc tggtagaaca aatattcttg
 3480
 gatctttgat caaagcctgg aatgatagct ttaatacaaa aaaa
 3524

<210> 2624

<211> 895

<212> PRT

<213> Homo sapiens

<400> 2624

Met Lys Ile Gly Ser Gly Phe Leu Ser Gly Gly Gly Gly Thr Gly Ser

1

5

10

15

Ser Gly Gly Ser Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Gly

				20				25				30						
Gly	Gly	Ser	Ser	Gly	Arg	Arg	Ala	Ala	Glu	Met	Glu	Pro	Thr	Phe	Pro	Gln		
				35					40					45				
Gly	Met	Val	Met	Phe	Asn	His	Arg	Leu	Pro	Pro	Pro	Val	Thr	Ser	Phe	Thr		
				50					55					60				
Arg	Pro	Ala	Gly	Ser	Ala	Ala	Pro	Pro	Pro	Gln	Cys	Val	Leu	Ser	Ser	80		
				65					70					75				
Ser	Thr	Ser	Ser	Ala	Ala	Pro	Ala	Glu	Pro	Pro	Pro	Pro	Pro	Pro	Ala	Pro		
				85					90					95				
Asp	Met	Thr	Phe	Lys	Lys	Glu	Pro	Ala	Ala	Ser	Ala	Ala	Ala	Ala	Phe	Pro		
				100					105					110				
Ser	Gln	Arg	Thr	Ser	Trp	Gly	Phe	Leu	Gln	Ser	Leu	Val	Ser	Ile	Lys			
				115					120					125				
Gln	Glu	Lys	Pro	Ala	Asp	Pro	Glu	Glu	Gln	Gln	Ser	His	His	His	His			
				130					135					140				
His	His	His	His	Tyr	Gly	Gly	Leu	Phe	Ala	Gly	Ala	Glu	Glu	Arg	Ser			
				145					150					155				
Pro	Gly	Leu	Gly	Gly	Gly	Glu	Gly	Gly	Ser	His	Gly	Val	Ile	Gln	Asp			
				165					170					175				
Leu	Ser	Ile	Leu	His	Gln	His	Val	Gln	Gln	Gln	Pro	Ala	Gln	His	His			
				180					185					190				
Arg	Asp	Val	Leu	Leu	Ser	Ser	Ser	Ser	Arg	Thr	Asp	Asp	His	His	Gly			
				195					200					205				
Thr	Glu	Glu	Pro	Lys	Gln	Asp	Thr	Asn	Val	Lys	Lys	Ala	Lys	Arg	Pro			
				210					215					220				
Lys	Pro	Glu	Ser	Gln	Gly	Ile	Lys	Ala	Lys	Arg	Lys	Pro	Ser	Ala	Ser			
				225					230					235				
Ser	Lys	Pro	Ser	Leu	Val	Gly	Asp	Gly	Glu	Gly	Ala	Ile	Leu	Ser	Pro			
				245					250					255				
Ser	Gln	Lys	Pro	His	Ile	Cys	Asp	His	Cys	Ser	Ala	Ala	Phe	Arg	Ser			
				260					265					270				
Ser	Tyr	His	Leu	Arg	Arg	His	Val	Leu	Ile	His	Thr	Gly	Glu	Arg	Pro			
				275					280					285				
Phe	Gln	Cys	Ser	Gln	Cys	Ser	Met	Gly	Phe	Ile	Gln	Lys	Tyr	Leu	Leu			
				290					295					300				
Gln	Arg	His	Glu	Lys	Ile	His	Ser	Arg	Glu	Lys	Pro	Phe	Gly	Cys	Asp			
				305					310					315				
Gln	Cys	Ser	Met	Lys	Phe	Ile	Gln	Lys	Tyr	His	Met	Glu	Arg	His	Lys			
				325					330					335				
Arg	Thr	His	Ser	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asp	Thr	Cys	Gln	Gln			
				340					345					350				
Tyr	Phe	Ser	Arg	Thr	Asp	Arg	Leu	Leu	Lys	His	Arg	Arg	Thr	Cys	Gly			
				355					360					365				
Glu	Val	Ile	Val	Lys	Gly	Ala	Thr	Ser	Ala	Glu	Pro	Gly	Ser	Ser	Asn			
				370					375					380				
His	Thr	Asn	Met	Gly	Asn	Leu	Ala	Val	Leu	Ser	Gln	Gly	Asn	Thr	Ser			
				385					390					395				
Ser	Ser	Arg	Arg	Lys	Thr	Lys	Ser	Lys	Ser	Ile	Ala	Ile	Glu	Asn	Lys			
				405					410					415				
Glu	Gln	Lys	Thr	Gly	Lys	Thr	Asn	Glu	Ser	Gln	Ile	Ser	Asn	Asn	Ile			
				420					425									

450 455 460
 Leu Ile Phe Lys Lys Gly Ser Arg Lys Asn Thr Asp Lys Asn Tyr Leu
 470 475 480
 Asn Phe Val Ser Pro Leu Pro Asp Ile Val Gly Gln Lys Ser Leu Ser
 485 490 495
 Gly Lys Pro Ser Gly Ser Leu Gly Ile Val Ser Asn Asn Ser Val Glu
 500 505 510
 Thr Ile Gly Leu Leu Gln Ser Thr Ser Gly Lys Gln Gly Gln Ile Ser
 515 520 525
 Ser Asn Tyr Asp Asp Ala Met Gln Phe Ser Lys Lys Arg Arg Tyr Leu
 530 535 540
 Pro Thr Ala Ser Ser Asn Ser Ala Phe Ser Ile Asn Val Gly His Met
 545 550 555 560
 Val Ser Gln Gln Ser Val Ile Gln Ser Ala Gly Val Ser Val Leu Asp
 565 570 575
 Asn Glu Ala Pro Leu Ser Leu Ile Asp Ser Ser Ala Leu Asn Ala Glu
 580 585 590
 Ile Lys Ser Cys His Asp Lys Ser Gly Ile Pro Asp Glu Val Leu Gln
 595 600 605
 Ser Ile Leu Asp Gln Tyr Ser Asn Lys Ser Glu Ser Gln Lys Glu Asp
 610 615 620
 Pro Phe Asn Ile Ala Glu Pro Arg Val Asp Leu His Thr Ser Gly Glu
 625 630 635 640
 His Ser Glu Leu Val Gln Glu Glu Asn Leu Ser Pro Gly Thr Gln Thr
 645 650 655
 Pro Ser Asn Asp Lys Ala Ser Met Leu Gln Glu Tyr Ser Lys Tyr Leu
 660 665 670
 Gln Gln Ala Phe Glu Lys Ser Thr Asn Ala Ser Phe Thr Leu Gly His
 675 680 685
 Gly Phe Gln Phe Val Ser Leu Ser Ser Pro Leu His Asn His Thr Leu
 690 695 700
 Phe Pro Glu Lys Gln Ile Tyr Thr Thr Ser Pro Leu Glu Cys Gly Phe
 705 710 715 720
 Gly Gln Ser Val Thr Ser Val Leu Pro Ser Ser Leu Pro Lys Pro Pro
 725 730 735
 Phe Gly Met Leu Phe Gly Ser Gln Pro Gly Leu Tyr Leu Ser Ala Leu
 740 745 750
 Asp Ala Thr His Gln Gln Leu Thr Pro Ser Gln Glu Leu Asp Asp Leu
 755 760 765
 Ile Asp Ser Gln Lys Asn Leu Glu Thr Ser Ser Ala Phe Gln Ser Ser
 770 775 780
 Ser Gln Lys Leu Thr Ser Gln Lys Glu Gln Lys Asn Leu Glu Ser Ser
 785 790 795 800
 Thr Gly Phe Gln Ile Pro Ser Gln Glu Leu Ala Ser Gln Ile Asp Pro
 805 810 815
 Gln Lys Asp Ile Glu Pro Arg Thr Thr Tyr Gln Ile Glu Asn Phe Ala
 820 825 830
 Gln Ala Phe Gly Ser Gln Phe Lys Ser Gly Ser Arg Val Pro Met Thr
 835 840 845
 Phe Ile Thr Asn Ser Asn Gly Glu Val Asp His Arg Val Arg Thr Ser
 850 855 860
 Val Ser Asp Phe Ser Gly Tyr Thr Asn Met Met Ser Asp Val Ser Glu
 865 870 875 880
 Pro Cys Ser Thr Arg Val Lys Thr Pro Thr Ser Gln Ser Tyr Arg

885

890

895

<210> 2625

<211> 1398

<212> DNA

<213> Homo sapiens

<400> 2625

```

ntctgactc cagcaggac tcacaagtct gagaggatc gcccgccac tcccacaaga
60
caccacgaga aacgcctctt ttgcagcagt ttaaggtagc ttaggggtca cagtgttgca
120
ttgtgggaag tataggcgcg caagcggagg aggcgtggcg agcggatcat ccgttccgg
180
agtcgagggt ttccggccttg tacgccttgg cgggtgcggcc tgggtcggcg ttgcaggttc
240
ttctctgtgt tgttctctgc cctgccaaag cgttagagct ggtgcgtgcg ggtagcgggg
300
ctctcgagg agccgcacgc cggcggcacc atggtccacc tctactctct cctctgcaag
360
gcctaccgtg ggggccactt aaccatccgc cttgccctgg gtggctgcac caatcggcgg
420
ttctaccgca ttgtggctgc tcacaacaag tgtccagggt atggccgttt cgtagagcag
480
ctgggctcct atgatccatt gcccaacagt catggagaaa aactcgttgc cctcaacctt
540
gacaggatcc gtcattggat tggctgcggg gccacctct ctaagcctat gaaaagcctt
600
ctgggtcttg ctggcttttt ccctctgcat cctatgatga tcacaaatgc tgagagactg
660
cgaaggaaac gggcacgtga agtcctgtta gcttctcaga aaacagatgc agaagctaca
720
gatacagagg ctacagaaac ataatgagc tgactttagt gagcatagca gtgggaacaa
780
ggtcaaggtc cttttgaaac actgcagoga tcttaatttt gttagatttg gagtccaata
840
aatggagtat cctgagttgc ctttgcctct ctggcctggc ctgcacaggg cccaggggaga
900
gatttgttct tgtgtgactt agagctgggt gtgggtacta attagctttt ttgcactttg
960
tcttgggata gacagtggct atgggaggat tggacttttg agttgggctc tgggtctctt
1020
ggacaacttt acaatttact ggcttccaag acttctctgt tcaaaacccc cagccagact
1080
attcatggcc cattcagatc ttcatgttca tcccacaagt gcaagaacag ttaacctttc
1140
ttaattgatt ttgttaattg gaggtttata ttgtcttgcc taatgcata tctctttttt
1200
tttttttttg agacggagtc ttgttctgtt gccaggaggc cgatgctgca gtgaactgtg
1260
attgttccac tacagtccag cctgggtgac agagaaaaga aaaagaaaac attacataat
1320
ttggctagag cataataatt tgattttctg gtttttgaaa atttgagttg caataaaagg
1380

```

atatttcagt gtgcgaaa
1398

<210> 2626
<211> 137
<212> PRT
<213> Homo sapiens

<400> 2626
Met Val His Leu Thr Thr Leu Leu Cys Lys Ala Tyr Arg Gly Gly His
1 5 10 15
Leu Thr Ile Arg Leu Ala Leu Gly Gly Cys Thr Asn Arg Pro Phe Tyr
20 25 30
Arg Ile Val Ala Ala His Asn Lys Cys Pro Arg Asp Gly Arg Phe Val
35 40 45
Glu Gln Leu Gly Ser Tyr Asp Pro Leu Pro Asn Ser His Gly Glu Lys
50 55 60
Leu Val Ala Leu Asn Leu Asp Arg Ile Arg His Trp Ile Gly Cys Gly
65 70 75 80
Ala His Leu Ser Lys Pro Met Glu Lys Leu Leu Gly Leu Ala Gly Phe
85 90 95
Phe Pro Leu His Pro Met Met Ile Thr Asn Ala Glu Arg Leu Arg Arg
100 105 110
Lys Arg Ala Arg Glu Val Leu Leu Ala Ser Gln Lys Thr Asp Ala Glu
115 120 125
Ala Thr Asp Thr Glu Ala Thr Glu Thr
130 135

<210> 2627
<211> 320
<212> DNA
<213> Homo sapiens

<400> 2627
acgcgtgaag ggggtgggga atgcacaaaa aaaacacctt gaaggagtgc ctttctcttg
60
acccagagga acgaaagaaa gctgagtcac aaataaaciaa ttctgccgtg gaaatgcagg
120
tgcaatcagc cctagccttt ttgggaacag agaattgatg tgaactgaag ggggcgctag
180
atttagaaaac ctgtgagaag caagatataa tgccagaagt ggacaagcag tctgttctgc
240
cagaaagccg agtagaaaaac acactgaaca tacatgaaga tttagattag gttaaactca
300
ttgaatatta cctgacttag
320

<210> 2628
<211> 90
<212> PRT
<213> Homo sapiens

<400> 2628
Met Phe Ser Val Phe Ser Thr Arg Leu Ser Gly Glu Pro Asp Cys Leu

```

1           5           10           15
Ser Thr Ser Gly Ile Ile Ser Cys Phe Ser Gln Val Ser Lys Ser Ser
20
Ala Pro Phe Ser Ser Thr Ser Phe Ser Val Pro Lys Lys Ala Arg Ala
35
Asp Cys Thr Cys Ile Ser Thr Ala Glu Leu Phe Ile Cys Asp Ser Ala
50
Phe Phe Arg Ser Ser Gly Ser Arg Glu Arg His Ser Phe Lys Val Phe
65
Phe Leu Cys Ile Pro Pro Pro Leu His Ala
85
80
85
90

<210> 2629
<211> 650
<212> DNA
<213> Homo sapiens

<400> 2629
acgcgtgaag ggtctacagg cagtgaagtga aggccaggag cagggccagg gccaggcacg
60
accaccgagg ggaagaactt cacagtggtt ttcaagccgc tgctagggga tgcacacacg
120
atggacaacc tggagaagca gtcacatctgc cccatctgcc tggagatggt ctccaaacca
180
gtggtgatcc tgccctgccacacacacctg tgcgcgcaaat gtgccaacga cgtcttccag
240
gtgggtgccca gggacgggca gggccaggta aagcaatgca gacctgtggg ggactgatca
300
ggtcagagct gagaccccg aagggtgatgg atagagtgtct ctctgagggt ggtggtgggt
360
gttggtggctg gagagcagaa gggctgggggt ccaagcaaat ccagagcaa gcatgagtcn
420
agcagctgcc ctgcaggctg gcaggtacag cctgtgcata gacggcagct ggagtgctgg
480
gatctaccaa ggaagtaga cctgtgtgaa actgggaggg aggggtatccc acacggggct
540
ttataagagc ctgtgccaga ctctgcattc cagtttgagg ttacagactt cgagagcatt
600
gtggaaaata cggagaaaag attaatgaga taatgaaaac ttaaaaaaaa
650

<210> 2630
<211> 58
<212> PRT
<213> Homo sapiens

<400> 2630
Met Asp Asn Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met
1
Phe Ser Lys Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg
20
Lys Cys Ala Asn Asp Val Phe Gln Val Gly Ala Arg Asp Gly Gln Gly
35
Gln Val Lys Gln Cys Arg Pro Val Gly Asp
40
45

```

50

<210> 2631
<211> 5124
<212> DNA
<213> Homo sapiens

55

<400> 2631
caagatattg aaaggctaata acatcagagt gatatcatag atcgtgtggg atatgacttg
60
gataacccaa attacacccat tccagaagag ggagatattt tgaatttaa ctccaaattt
120
gagtcgtggga atctgcgcaa agtaattcaa attagaaaa atgaatatga tcttattctg
180
aactcagaca taacacagcaa tcattatcat cagtgggtttt actttgaagt cagtgggaatg
240
cgaccagggtg ttgcttacag gtttaacatc attaactgtg aaaagtccaa cagtcagttt
300
aattatggta tgcaaccact catgtattcg gttcaggaag cattaaatgc cagaccatgg
360
tggattcgta tggggactga catttgttac tataaaaatc atttctcaag aagttcagtt
420
gctgcagggtg ggcaaaaggg aaaatcctac tatacaatta catttactgt caattttcca
480
cataaagatg atgtttgcta ctttgcctat cactatccat atacgtatcc aactttacag
540
atgcattctc aaaaattgga atcagcacac aatcctcagc aaatctattt tcggaagat
600
gtgttatgtg aaaccctgtc tggaaacagc tgccccttgg tgactataac agcaatgcc
660
gagtcctaatt attatgaaca tatctgccat ttcagaaatc gcccttacgt tttcttgtct
720
gctcgggtac atcctggaga aactaatgca agttgggtta tgaaaggaac gttggaatat
780
ctcatgagca ataaccaccac tgctcagagc ttactagaat cttatatatt taaaattgtc
840
cctatgttaa atccagatgg tgcattcaat ggaatcacc gctgttcttt aagtggagag
900
gatttgaata ggcagtgga aagtcgaagt ccggatttac atcctacaat ttaccatgct
960
aaggggctgt tgcaatactt ggctgcagtg aagcgtttac ccttgggtta ttgtgattat
1020
catggccatt cccgaaagaa gaatgtattt atgtatggtt gcagcatcaa agagacagtg
1080
tggcatacca atgataatgc aacttcattg gatgttgttg aggatacggg atacaggaca
1140
ttgcctaaga taactgagcca tatcgcccca gcattttgca tgagcagctg tagcttcgta
1200
gtggaaaaat ctaagaatc cacagcacgt gttgtagtgt ggagggaaat aggagtacaa
1260
agaagttata ccatggagag tactttatgt ggctgtgac agggaaaaat caagggttta
1320
cagattggta cccgagaact ggaagagatg ggagcaaaat ttgtgtgttg tctttacgt
1380

ttgaaaagac tgacctctcc attggagtat aatctgcctt ccagcctgct tgactttgaa
1440
aatgatattaa ttgaatcaag ctgcaaagta actagcccta ccacttatgt cttggatgaa
1500
gatgaacctc gattccttga agaagttgat tacagtgagc aaagtaatga tgagttgat
1560
attgagttgg ctgaaaatgt aggagattat gaaccttctg ctcaagaaga agtactttct
1620
gactctgaat tatcaagaac atacctacct tgagcccgct gccatctctt gttaactgca
1680
aagaataaat gaaatatctt ggtttttatt tcccaggaag cttgagagaa atgagtttat
1740
acagagctga ctcaaaaaga caaaaagtaa cttggggccag ttggtttca agataataaa
1800
tgtgttatta attaatgata aaattggcgc ttgttttatt ttcgatatc aatgcacttt
1860
atgtgacatt gaatgatcaa atattggatt tacctttaaa aaaaaacct gagtatcatt
1920
gcatgaattt ttatctccct atgggttatat cctgcatcaa gtggataatt ttgaagtgtg
1980
ttcagaatat aaaattgaaa ttttagagtt gttgaaaatc ctgacttggt gaaaactaat
2040
atatatgtac atggatttct atagatgtgt ttgtttagaa gtgggtagat attcgagata
2100
agactgttct tcgaatcat gttaactatt gggtttgac tgaaagtagc cagggtttgc
2160
cttgaacca ttacattcta cattttacca attaaacaaa taaaactgt attaatggt
2220
gcattcattt tgtcatcttc ttttaaccgc tcagattatt tgatgtatag aactttgtga
2280
gaatgtgata aaaaccaga attggacaca gtgataaaaa gttgttttta agaaagtgt
2340
gggattacag gcgtgcgcca cgtgcctgg ctaaatcctt tcttgtaatg aaacctacct
2400
gggttttagc cctcttgctg caagaatgac ttattttta aataaaataa agcaaatcca
2460
ttgaccttgg ataagtgtt taagaactaa gttcttgata taataaaaca acctccaaaa
2520
gatacctcat tgcagatttt cgcaggatt cagggtgctta gggtttgga catatcttcc
2580
tcactttttc ctatagtgtt ttttaacctgt tataattgga atgatagaga tgtatttcag
2640
aattttgcat ggtccaaatc aatgattttt ctttttaata tgtaagtat ttcattaaca
2700
gtgtagattc tttctgatgt ttggggagcc atgtttaaaa atgtagtatg gagcaattga
2760
aaaaggggtc tttttcccta gcctaattct tactaatctc agaaaacaaa gatcaaatag
2820
actgtgaagt tgaactagtc ctcttagtgt agtaaccaaa tttagggaag atcaggataa
2880
tttaggaagg aaagtaatca tttatttaatt tatttataat tataaacaat tattttatgt
2940
ttgtatatt ttatgtataa aacaattaca tgttttatta tagttatact tcttcagaga
3000

gtagattatg gagccaccat gtccatacag ttagttgttc ctgtgtattc ttggattgat
3060
tccaggagccc cccacagtta cccaaatcca cagatgctga agtctctgat ataaaaatgga
3120
gtagtatttg catttaacct atggacatcc tcctgtatgc tttaaactcat ctctagatta
3180
ctataatac ctaatacaat ataaataaa atgctctgta aatagtttta ttgtatatgt
3240
tgtgtgtgtg ttttaagaga cgaggactca caatgggaca ctttgaccag gctgggtctg
3300
aactcctggg cctacacaat cctcccacct cggcgtcgca agtagctggg actcacggta
3360
ctcaccacta tgcctggcag ttttttaaat ttgcgttttt aaaaattgtt tattttttat
3420
tgaatatttt ctacctgaga ttgacttaat ctgtggatat ggaacctata gatattggag
3480
gctggctgta tatgaatttg tttttggctt ttacaaaaat agaaattaaa agtaactaca
3540
gttactataa tgtgcagaat gactcaataa tttccattta ttatgttagt gtaaaaactc
3600
ctaactacgt attataatat tttatattaa tgaagtactt tagcatacat tatgagcctg
3660
aataaagctt tttattaaat attcacaaga ttgaaggaga aattctttat agttaggaaa
3720
tgattttttc ataaacaata aatagctttg aaaatataaa aaaaaattta gggctgggtg
3780
cagaggctca tgcctgtagt cccagcactc tgagaggccg aggcgggtgg atcacttgag
3840
gtgaggagtt caagatcagc atggccaaca tggtagaaact ccacctccac gaaaataaca
3900
aaaattagcc aggcattggtg gcatgcgcct gtaatcctag ctacttgggt ggctgaggca
3960
tgagactcac ttgaacctgg gaggcagagg ttgcagcagt gagccgagat caagccgctg
4020
cactccagct ggggcgacaa agcaagactg tctcaaaaaa taaaaacaaa aaaaattaaa
4080
taaaaactca actttcctag ttgaaatat aattaacttt tattggctat tagtagctaa
4140
aattgccctt atttttgctt ctgtggcctc attttttttc tcggttattc agtattttaa
4200
ttatggctta gatgtcttca atgctatagt cctgaaaatt aatgatctac gttgtgcagc
4260
agtgtggga tctgataaac tgagtctgat gatggagttt agattttatt cctttacctt
4320
gcatttggaa ctttgaatct cttaaattgt gttttgtgct agtccactgg ttctcacgtt
4380
gtaatgtgca tcagaatctt ctgaagacac agattgtctga ttatgtagac ctggggtgga
4440
ggtccaagaa tgtgcattcc ttgcaaattc ccagggtggtg atgctgcaga gccacacttt
4500
gagaatcact agtataatcc agtatgctct tccagcatca caccttctct cctgagaatc
4560
acaggagtgt tgaactgcag attagcattg gggagaattt agatcaaaact aattttaga
4620

atcaaggagg tcaagtaagg tcacaggggc acttgggttg agccagggtt ttatcccagg
 4680
 tcttctgaca actgectcat gtccttacca caaaggagct gctatccttt gcctttcccc
 4740
 aaagagtga gactgcttaa agctcaagga tctttcttga atttgtgaaa ttgtttcagg
 4800
 caagggtgaaa agcaaaaacc tatggttcac attgactttt tgtattgac attgtctttt
 4860
 gaagacagga agtatgatca gtcctcgcca ctgtgctag tttttgtgtg gtgtttagaa
 4920
 acatgggcat ttgtctggat cctaattaca aataagtaac ctagaattct ctccagatag
 4980
 tgcactaaca gcaatgaatc tattctaaat ttcaaatatc caaattaaaa tgactgtatt
 5040
 agcataagta ctgaaatgga taatacaata aatgtattaa tggaattggt ttgtgctgac
 5100
 atacagaaat aatgatagtg aacg
 5124

<210> 2632

<211> 550

<212> PRT

<213> Homo sapiens

<400> 2632

Gln	Asp	Ile	Glu	Arg	Leu	Ile	His	Gln	Ser	Asp	Ile	Ile	Asp	Arg	Val
1			5					10					15		
Val	Tyr	Asp	Leu	Asp	Asn	Pro	Asn	Tyr	Thr	Ile	Pro	Glu	Glu	Gly	Asp
		20					25					30			
Ile	Leu	Lys	Phe	Asn	Ser	Lys	Phe	Glu	Ser	Gly	Asn	Leu	Arg	Lys	Val
		35				40					45				
Ile	Gln	Ile	Arg	Lys	Asn	Glu	Tyr	Asp	Leu	Ile	Leu	Asn	Ser	Asp	Ile
		50			55						60				
Asn	Ser	Asn	His	Tyr	His	Gln	Trp	Phe	Tyr	Phe	Glu	Val	Ser	Gly	Met
65			70					75					80		
Arg	Pro	Gly	Val	Ala	Tyr	Arg	Phe	Asn	Ile	Ile	Asn	Cys	Glu	Lys	Ser
			85					90					95		
Asn	Ser	Gln	Phe	Asn	Tyr	Gly	Met	Gln	Pro	Leu	Met	Tyr	Ser	Val	Gln
		100						105					110		
Glu	Ala	Leu	Asn	Ala	Arg	Pro	Trp	Thr	Ile	Arg	Met	Gly	Thr	Asp	Ile
		115				120						125			
Cys	Tyr	Tyr	Lys	Asn	His	Phe	Ser	Arg	Ser	Ser	Val	Ala	Ala	Gly	Gly
		130				135					140				
Gln	Lys	Gly	Lys	Ser	Tyr	Tyr	Thr	Ile	Thr	Phe	Thr	Val	Asn	Phe	Pro
145				150						155				160	
His	Lys	Asp	Asp	Val	Cys	Tyr	Phe	Ala	Tyr	His	Tyr	Pro	Tyr	Thr	Tyr
			165					170						175	
Ser	Thr	Leu	Gln	Met	His	Leu	Gln	Lys	Leu	Glu	Ser	Ala	His	Asn	Pro
			180					185					190		
Gln	Gln	Ile	Tyr	Phe	Arg	Lys	Asp	Val	Leu	Cys	Glu	Thr	Leu	Ser	Gly
		195				200						205			
Asn	Ser	Cys	Pro	Leu	Val	Thr	Ile	Thr	Ala	Met	Pro	Glu	Ser	Asn	Tyr
		210				215						220			
Tyr	Glu	His	Ile	Cys	His	Phe	Arg	Asn	Arg	Pro	Tyr	Val	Phe	Leu	Ser

[illegible]

```
<210> 2633
<211> 1569
<212> DNA
<213> Homo sapiens
```

```
<400> 2633
gattagtgaat ttgatggatg aataggggaag aagaaacgag agacgcatag acagatgaat
60
ggcaatatgct atgtgctctt gaggcagaca nacaatgaag taccacgagc gccctgctcc
120
ttcgccgaggc cctcagccg catcctggaa aaaaggaagc acacgcgact cgtggagcag
180
```

ctagatgaga gctctgtctg agcccagcct ccagaaaca atgctcttcc aagccagcct
240
atctgtccca ggctgggcca ctctctccct aacacagcca cctcccttc attaccccca
300
ctccataccc ttctcccaac tttttgatgt cctgttaggg ctggccagtc agggccagcc
360
aaagccccc cctcagtc cccagaccca catgtgagca gccagggccc atcggtgctc
420
ctcagaggca gggctctgca ggtccatag ggctcaatgt caccacccctc tgcattggccc
480
tggtgtgctg atggtctctga aaccagacaa gacctctgcc agccacctaa gccctgcgta
540
cattcacatg cacacatgga agaattgtta tcggctgggc tgcagtgccc ccacctctac
600
cttctcctgg tgcattcttg ttctatccct gcttctggac ttgggggtacc ctcccaattg
660
ccacatccta tctggctctc ttccccagcc ccatgtgggt acctctttgt caagagcttg
720
ggaaaggccc agcctgggga ggtaagactg catcactccc ctctctccc ttctgtgtg
780
gcccttgatg atcagcctcc ccaactctct tggtcattct caagagtatg agagacagag
840
ctccaggcat gtcccatccc catgcacatg tggttaacaca cactctgtat acacatgtgc
900
ttacatttcc actcacatgc acctctgagc ctcccttgct gtcttgagcc tgtctgttg
960
gtttagtccg tggacatttc agagggagat cccctccca tttaactgtc ctcacagggc
1020
cttgccctagg atggatgacc aacactgcac tcaatgagcc agcctctctt ttgggggaat
1080
caagcatttg ctctctctag actacagcag ggaaaggagg gagaatctg atgtctcaac
1140
tggcacatga agcccattct tggaaactat caaaggcag aggctgggag ttggacgct
1200
tagctctcac cctgtccta cctcaccggg gcactttcag gggccagggg cctctgaagt
1260
ctctaggcct atatgggaca atcaattctg actgagctcc cccattcccc tcgggtgagg
1320
atgactgtta tttttgtagc tgagaacgtg gaatcccacg ggtttttact gcccttcacc
1380
caacctctcc cactccacc ccacaatgaa tgtatttatt gtgagaatgg ctacacttct
1440
ttagggaatgc ccccacttac aaccaggtgg gtggaacagc catgtgacag agtggggagc
1500
ctgggctcag ctctctcccc tgcctgttgg taataaacac cctttttccc cacaaaaaaa
1560
aaaaaaaaa
1569

<210> 2634

<211> 59

<212> PRT

<213> Homo sapiens

<400> 2634

```

Ile Gly Lys Lys Lys Arg Glu Thr Asp Arg Gln Met Asn Gly Asn Ser
 1             5             10             15
Tyr Val Leu Leu Arg Gln Thr Xaa Asn Gly Val Pro Ala Gly Pro Cys
                20             25             30
Ser Phe Ala Glu Glu Leu Ser Arg Ile Leu Glu Lys Arg Lys His Thr
        35             40             45
Gln Leu Val Glu Gln Leu Asp Glu Ser Ser Val
    50             55

```

<210> 2635

<211> 1062

<212> DNA

<213> Homo sapiens

<400> 2635

```

nncggcacga ggcctttcct aggattgtgc caggggcaca caaggatttc aaagtacaga
60
aaaaactggg catacacatg cctacaaaag cagccaaaag acattcccca gtctctctca
120
ggaaatgttt caagatgaaa agcaaaagtc tgaagtcctt tggaatcttg ggttgatttc
180
ttcattattc tcaaggctag gttgttttcc ccagcctaac ttgtttgggc aaaaataaaa
240
catttccaaa taaaagcaac tcctcagccc caattttcaa tgcaatatgc ttattaaaag
300
ttcaacattt ctcaaggctc agacttatag tgtgatcata ttacagtact cgagggaagagc
360
attttctttg ttgttgaccc tgetagggaa acagggtcttg actcagccaa agtggcggttc
420
ttgtgggtga ttaatgacag gcctagatct cgccttagtg acatccatcc cccaccccc
480
accccacta tactaaaatc agccgtgtct gaactgaagg aggggctgta gcctcgcctc
540
aaaccaccca gtcccagagt taatagctgc aaccaatcga ttacggcaag cacacatcca
600
gattgggggt aaatgtgacc ctttcgccta aatttacgaa taatatcgtc ctctctgatc
660
atttcogctg gggctccagc gactacggaa acaattccaa tcattcggcc caaagaaaaa
720
gatgtccctg ttctacccaa tacgggcaag gcaaagcccc taccacctc caaacactat
780
cccttgaca tcagcccatc tctatttgtt cttattaggt cctcgggcta cgaggacctc
840
gtgaaaaaac tggtgacctc actactttgc taagaacaa aaccacacag tccggcacc
900
ccacccagg ggcgcgctcc cacacccag gacccctgtt cccagttctc tccactaccc
960
cggcgccgcg gggcgccggg cccacctgtg gtgaggcggg agggagcgtc gccgaagggg
1020
gatggctcca ttcggagata cttctcgggc gagggcgccg ca
1062

```

<210> 2636

<211> 63

<212> PRT

<213> Homo sapiens

<400> 2636

Glu Gln Glu Pro His Ser Pro Ala Pro Pro Gln Gly Pro His Pro
 1 5 10 15
 Thr Pro Gln Asp Pro Cys Ser Gln Phe Ser Pro Leu Pro Arg Arg Pro
 20 25 30
 Arg Gly Arg Val Pro Pro Val Val Arg Arg Glu Glu Thr Ser Pro Lys
 35 40 45
 Gly Asp Gly Ser Ile Arg Arg Tyr Phe Cys Gly Glu Ala Ala Ala
 50 55 60

<210> 2637

<211> 1045

<212> DNA

<213> Homo sapiens

<400> 2637

acgcgtgccca cggatgagc cccccaccc ctcttgccc tgccccacg tgggtctctt
 60
 ctgaggagbgt ggcacatctt cactgtgtgt tgggggacac cctctcaagt ttccatggct
 120
 cagcagaagc agtgacacag tgggaatcta agagcatctc tcagattttg ctctagaatt
 180
 ggccctggcca acggacttcc ctctctgggg gaggtgggac agaagcactc cggagccaac
 240
 agctcagcca cggccatgct gaacgtctgt ttctgccttt gtacggcctc ttctcttgcg
 300
 gtatccaaga tgcgcctcag tgtcttttta aagaagcaag aagagagcca gtttcaccct
 360
 ctggagtgtt tggcaaggga agcctgcaac caggacgctc tccaggaggc gggcacattc
 420
 aggcacaccc tctggaagcg ggtccaaggt gctgtcacc ctctgctggc gagcatgata
 480
 tcattcatcg acagagacgg caacctagag ttactgacca ggccagatac tccgccctgg
 540
 gcaagagatc tttggatgtt tatcttcagt gacacgatgc ttctgaacat tctcttggtg
 600
 atgaataatg aaagacataa aggtgagatg gcctacatcg tgggtcgagaa ccacatgaac
 660
 ctttccgaga acgcttccaa caacgtccct ttacgctgga aaatcaagga ctatctggag
 720
 gagctgtggg tccaggctca gtacatcaca gacgcagaag gactgcccaa gaagtctgtg
 780
 gacatcttc agcagaactcc tctgggcagg ttctctgccc agctccatgg agagccgag
 840
 caggaaacttc ttcagtgtta cttgaaggat ttcattctct tgaccatgcg tgtgtcaacg
 900
 gaggagggaat taaagtttct gcagatggct ctgtggctct gcactaggaa actgaaagcg
 960
 gcgtcagaag cgcccagga agaggtttcc ttaccgtggg tgcaccttgc ctaccagcgt
 1020

ttcagaagcg gtctgcagaa ctttt
1045

<210> 2638
<211> 263
<212> PRT
<213> Homo sapiens

<400> 2638
Met Leu Asn Val Cys Phe Cys Leu Cys Thr Ala Ser Phe Leu Arg Val
1 5 10 15
Ser Lys Met Arg Leu Ser Val Phe Leu Lys Lys Gln Glu Glu Ser Gln
20 25 30
Phe His Pro Leu Glu Trp Leu Ala Arg Glu Ala Cys Asn Gln Asp Ala
35 40 45
Leu Gln Glu Ala Gly Thr Phe Arg His Thr Leu Trp Lys Arg Val Gln
50 55 60
Gly Ala Val Thr Pro Leu Leu Ala Ser Met Ile Ser Phe Ile Asp Arg
65 70 75 80
Asp Gly Asn Leu Glu Leu Leu Thr Arg Pro Asp Thr Pro Pro Trp Ala
85 90 95
Arg Asp Leu Trp Met Phe Ile Phe Ser Asp Thr Met Leu Leu Asn Ile
100 105 110
Pro Leu Val Met Asn Asn Glu Arg His Lys Gly Glu Met Ala Tyr Ile
115 120 125
Val Val Gln Asn His Met Asn Leu Ser Glu Asn Ala Ser Asn Asn Val
130 135 140
Pro Phe Ser Trp Lys Ile Lys Asp Tyr Leu Glu Glu Leu Trp Val Gln
145 150 155 160
Ala Gln Tyr Ile Thr Asp Ala Glu Gly Leu Pro Lys Lys Phe Val Asp
165 170 175
Ile Phe Gln Gln Thr Pro Leu Gly Arg Phe Leu Ala Gln Leu His Gly
180 185 190
Glu Pro Gln Gln Glu Leu Leu Gln Cys Tyr Leu Lys Asp Phe Ile Leu
195 200 205
Leu Thr Met Arg Val Ser Thr Glu Glu Glu Leu Lys Phe Leu Gln Met
210 215 220
Ala Leu Trp Ser Cys Thr Arg Lys Leu Lys Ala Ala Ser Glu Ala Pro
225 230 235 240
Glu Glu Glu Val Ser Leu Pro Trp Val His Leu Ala Tyr Gln Arg Phe
245 250 255
Arg Ser Gly Leu Gln Asn Phe
260

<210> 2639
<211> 3777
<212> DNA
<213> Homo sapiens

<400> 2639
ttaggctcctt gggcagaaaa tgatcattta aagaaggaaa cctcaggtgt ggtcttagca
60
ctttctgcag agggctcctcc tactgctgct tcagaacaat atacagatag gctggaactc
120

cagcctggag ctgctagtca gtttattgca ggcagcccca caagtctaata ggaggcgag
180
gcagaagac cccttacagc gattacaatt cctagacctt ctgtggcatc tacacagtca
240
acttcaggaa gctttcactg tggtcagcag ccagagaagg aagatcttca gcccatggag
300
cccactgtgg aactttactc tccaagggaa aactttctctg gcttgggtgt gacagaggggt
360
gaacctccta gtggaggaag cagaacagat ttggggcttc agatagatca cattggtcat
420
gacatgttac ccaacattag agaaagtaac aaatctcaag acctgggacc aaaagaactt
480
cctgatcata atagactggt tgtgagagaa ttgaaaaatc tccctgggga aactgaagag
540
aaaagcatcc ttttagagtc agataatgaa gatgagaagt taagtagagg gcagcattgt
600
attgatgtct cctctctccc aggagatttg gtaattgttg aaaaggatca ctacgtact
660
actgaacctc ttgatgtgac aaaaacacag acttttagtg tggtgccaaa tcaagacaaa
720
aataatgaaa taatgaagct tctgacagtt ggaacttcag aaatttcttc cagagacatt
780
gacccacatg ttgaaggtca gataggccaa gtggcagaaa tgcaaaaaaa taagatatct
840
aaggatgatg acatcatgag tgaagacttg ccaggtcatc aaggagacct ctctactttt
900
ttgcaccaag agggcaagag agagaaaatc acccctagaa atggagaact atttcattgt
960
gtttcagaga atgaacatgg tgcccaacc cggaaggata tggttaggtc atcctttgtg
1020
actagacaca gccgaatccc tgttttagca caagagatag actcaacttt ggaatcatcc
1080
tctccagttt ctgcaaaaga aaagctcctc caaaagaaag cctatcagcc agacctagtc
1140
aagcttcttg tggaaaaaag acaattcaag tccttctctg gcgacctctc aagtgacctc
1200
gataaattgc tagaggagaa actagctact gttcctgctc ccttttgtga ggagggaagtg
1260
ctcactccct tttaagact gacagtagat tctcacctga gtaggtcagc tgaagatagc
1320
ttctgtcac ccatcatctc ccagctctga aagagcaaaa ttccaaggcc agtttcatgg
1380
gtcaacacag atcaggtcaa tagctcaact tcgtctcagt tcttctctcg gccaccacca
1440
ggaaagccac ccacgaggcc tggagtgaag gccaggctac gcagatataa agtcttaggg
1500
agttagtaact ccgactcaga ccttttctcc cgcttgccc aaattcttca aaatggatct
1560
cagaaacccc ggagcactac tcagtgcag agtccaggat ctctcaciaa tccaaaaaca
1620
ccaccaaga gtccagttgt ccctgcag agtcccagtc cctctcctcg aagctcatcc
1680
ttgcctcgca cgtctagttc ctccacctct agggctggac ggccccacca tgaccagagg
1740

agttcgtccc cacatctggg gagaagcaag tcacctccca gccactcagg atcttctctc
1800
tccaggagggt cctgccaca ggagcattgc aaaccagca agaattggcct gaaaggatcc
1860
ggcagcctcc accaccactc agccagcact aaaacccccc aagggaagag taagccagcc
1920
agtaaaactca gcagatagga gccaggctgc atctctttga aagggtgtgag atcttctctc
1980
taaacctgat gcatgtgtgt cctgtactt tctatgtaaa aaaatcagtg ttgactttct
2040
cttgcaaaag aaagtaacat gatcaattat ttataagaag acataatata tgataaggaa
2100
ttacctaaagg caggcagcaa gtagattagg aatcaatgtc ttgtacaag aaggaaaaat
2160
agagcaaaaa tccaaggggg agaaactcat taaaatgagc tctcattttt taagctgcct
2220
ttgaacaaaa agagttgagg ataggagata gaattggaatt ttgggggggt tgcctaattt
2280
ttttaagcct caattcaaaag attatatagc aaaagtgaat cttctgtttt gatattttca
2340
ttcaaaactt tcccaccctg aagagtcatt gatcagatat tagattatat aagaagtctg
2400
ttgccaggga gccagtatcc atgtatatatt ggcttgtgtg tttatttcgt gtattgagaa
2460
tgaacacctt tactttgcct cattcctagt accctccctg gagttcagat ttttttttaa
2520
aattttgtat gtctcgtctg attcaatctc tctgctttta ttttatggtc ctagtgtgac
2580
tatcaaatcc aattactttt ttttaggtcc cctgatttt ttttttttag agcaagagtt
2640
cttaacatat tacattttta ttatgaaaaa taagaaagtt aggtaaagga aagaaaagtc
2700
taactagagc tattttgcag gcttttagtg ttaggagag aaagaaagtg tgggttaata
2760
gccttcaaga tagaagatgc cctttcatct ctgttaagtg tctcctttta gaaacttgag
2820
tagaaggaaa actgaccaga gtagactgct tctttaagtc tctgggttc caactgttg
2880
taatatcagc atccaagatg atacgaggga agcacaatgc ttggactgt gatttgagat
2940
ttagaataa attagatata ttattgaggc ttagaatcct caaactttgt attttatata
3000
tttagccaat aaggaattaa tatctgggga aataaattta ggcaaatatt tcttttttaa
3060
tgttttatta cctgcttctc ctgtgtttta gttcaacatt tgggcttctt ggcctgattt
3120
tcatacaatc tcaatttacg aagctgtaaa gaggaagata ttgttctaa tctcactctt
3180
ctaattaggaa tcaggcaaat gaaagtctac cagactttta aaatgggctg ttttttact
3240
ctctagggtgt tttgctgtgt aaagacctta ttaaggctac gtaaatgggt ctgcttgctg
3300
ttgaaatttg ccttctagca aacatatgtg ctttctgttt gacctgtgtt ttgctgccaa
3360

acctaataca gttgaattgg gaaacaaaaa aaaaagaaag gaatacattt cctccccaag
 3420
 tgaacatctt ctaatgctgc atcaaaagctg ccttgaagct gcaactgaact tctcttggtc
 3480
 tctttatctg tgttgagctt tttaaaaaaa caaactcaaa acactattga ggcataatac
 3540
 gtctcttata agaaatgtag catagtgtgg aatcttaatt tctctccagt ttcaaacact
 3600
 ccagaggaat gcaatagata agacatactt gctgtttatc taaagcaact gtaatatggg
 3660
 aagatcagtc cttctgtatt atattgtata atagttgcta taacactact tgcattgtctt
 3720
 catggtaaat tatataaata tttataaata tatagagaga catatcctta aaaaaa
 3777

<210> 2640

<211> 645

<212> PRT

<213> Homo sapiens

<400> 2640

Leu	Gly	Pro	Trp	Ala	Glu	Asn	Asp	His	Leu	Lys	Lys	Glu	Thr	Ser	Gly
1				5					10					15	
Val	Val	Leu	Ala	Leu	Ser	Ala	Glu	Gly	Pro	Pro	Thr	Ala	Ala	Ser	Glu
20				25					30						
Gln	Tyr	Thr	Asp	Arg	Leu	Glu	Leu	Gln	Pro	Gly	Ala	Ala	Ser	Gln	Phe
	35					40					45				
Ile	Ala	Ala	Thr	Pro	Thr	Ser	Leu	Met	Glu	Ala	Gln	Ala	Glu	Gly	Pro
	50				55						60				
Leu	Thr	Ala	Ile	Thr	Ile	Pro	Arg	Pro	Ser	Val	Ala	Ser	Thr	Gln	Ser
65					70				75					80	
Thr	Ser	Gly	Ser	Phe	His	Cys	Gly	Gln	Gln	Pro	Glu	Lys	Glu	Asp	Leu
				85					90					95	
Gln	Pro	Met	Glu	Pro	Thr	Val	Glu	Leu	Tyr	Ser	Pro	Arg	Glu	Asn	Phe
		100					105						110		
Ser	Gly	Leu	Val	Val	Thr	Glu	Gly	Glu	Pro	Pro	Ser	Gly	Gly	Ser	Arg
		115					120					125			
Thr	Asp	Leu	Gly	Leu	Gln	Ile	Asp	His	Ile	Gly	His	Asp	Met	Leu	Pro
	130				135						140				
Asn	Ile	Arg	Glu	Ser	Asn	Lys	Ser	Gln	Asp	Leu	Gly	Pro	Lys	Glu	Leu
145					150				155					160	
Pro	Asp	His	Asn	Arg	Leu	Val	Val	Arg	Glu	Phe	Glu	Asn	Leu	Pro	Gly
				165					170					175	
Glu	Thr	Glu	Glu	Lys	Ser	Ile	Leu	Leu	Glu	Ser	Asp	Asn	Glu	Asp	Glu
				180				185					190		
Lys	Leu	Ser	Arg	Gly	Gln	His	Cys	Ile	Glu	Ile	Ser	Ser	Leu	Pro	Gly
	195										200				
Asp	Leu	Val	Ile	Val	Glu	Lys	Asp	His	Ser	Ala	Thr	Thr	Glu	Pro	Leu
		210				215					220				
Asp	Val	Thr	Lys	Thr	Gln	Thr	Phe	Ser	Val	Val	Pro	Asn	Gln	Asp	Lys
225					230				235					240	
Asn	Asn	Glu	Ile	Met	Lys	Leu	Leu	Thr	Val	Gly	Thr	Ser	Glu	Ile	Ser
				245					250					255	
Ser	Arg	Asp	Ile	Asp	Pro	His	Val	Glu	Gly	Gln	Ile	Gly	Gln	Val	Ala

260 265 270
 Glu Met Gln Lys Asn Lys Ile Ser Lys Asp Asp Ile Met Ser Glu
 275 280 285
 Asp Leu Pro Gly His Gln Gly Asp Leu Ser Thr Phe Leu His Gln Glu
 290 295 300
 Gly Lys Arg Glu Lys Ile Thr Pro Arg Asn Gly Glu Leu Phe His Cys
 305 310 315 320
 Val Ser Glu Asn Glu His Gly Ala Pro Thr Arg Lys Asp Met Val Arg
 325 330 335
 Ser Ser Phe Val Thr Arg His Ser Arg Ile Pro Val Leu Ala Gln Glu
 340 345 350
 Ile Asp Ser Thr Leu Glu Ser Ser Pro Val Ser Ala Lys Glu Lys
 355 360 365
 Leu Leu Gln Lys Lys Ala Tyr Gln Pro Asp Leu Val Lys Leu Leu Val
 370 375 380
 Glu Lys Arg Gln Phe Lys Ser Phe Leu Gly Asp Leu Ser Ser Ala Ser
 385 390 395 400
 Asp Lys Leu Leu Glu Glu Lys Leu Ala Thr Val Pro Ala Pro Phe Cys
 405 410 415
 Glu Glu Glu Val Leu Thr Pro Phe Ser Arg Leu Thr Val Asp Ser His
 420 425 430
 Leu Ser Arg Ser Ala Glu Asp Ser Phe Leu Ser Pro Ile Ile Ser Gln
 435 440 445
 Ser Arg Lys Ser Lys Ile Pro Arg Pro Val Ser Trp Val Asn Thr Asp
 450 455 460
 Gln Val Asn Ser Ser Thr Ser Ser Gln Phe Phe Pro Arg Pro Pro Pro
 465 470 475 480
 Gly Lys Pro Pro Thr Arg Pro Gly Val Glu Ala Arg Leu Arg Arg Tyr
 485 490 495
 Lys Val Leu Gly Ser Ser Asn Ser Asp Ser Asp Leu Phe Ser Arg Leu
 500 505 510
 Ala Gln Ile Leu Gln Asn Gly Ser Gln Lys Pro Arg Ser Thr Thr Gln
 515 520 525
 Cys Lys Ser Pro Gly Ser Pro His Asn Pro Lys Thr Pro Pro Lys Ser
 530 535 540
 Pro Val Val Pro Arg Arg Ser Pro Ser Ala Ser Pro Arg Ser Ser Ser
 545 550 555 560
 Leu Pro Arg Thr Ser Ser Ser Ser Pro Ser Arg Ala Gly Arg Pro His
 565 570 575
 His Asp Gln Arg Ser Ser Ser Pro His Leu Gly Arg Ser Lys Ser Pro
 580 585 590
 Pro Ser His Ser Gly Ser Ser Ser Ser Arg Arg Ser Cys Gln Gln Glu
 595 600 605
 His Cys Lys Pro Ser Lys Asn Gly Leu Lys Gly Ser Gly Ser Leu His
 610 615 620
 His His Ser Ala Ser Thr Lys Thr Pro Gln Gly Lys Ser Lys Pro Ala
 625 630 635 640
 Ser Lys Leu Ser Arg
 645

<210> 2641

<211> 744

<212> DNA

<213> Homo sapiens

<400> 2641
 gaattcaagg tccttttccc tcagggtcac gtacctacag cttgtatgcc gcagcctgtc
 60
 catctcccca cttgcgtatg taagggcagt gcttctatga gccatgagca ttaactcacct
 120
 gaaacctagg tgtaggaat gcaaccagct agatctgacc catgccctgt tttgtgtctg
 180
 cgttgacatg ctgcaggtga catcagttgc aaggggatga ccgagcgcat tcacagcacc
 240
 aaccttcaca acttcagcaa ttccgtgctc gagaccctca acgagcagcg caacctggcg
 300
 cacttctgtg acgtaacggt gcgcatccac gggagcatgc tgcgcgcaca ccgctgcgtg
 360
 ctggcagcgc gcagcccctt cttccaggac aaactgtctg ttggctacag cgacatcgag
 420
 atcccgctcg tggtgtcagt gcagtcagt caaaagctca ttgacttcat gtacagcggc
 480
 gtgctacggg tctgcagtc ggaagctctg cagatcctca cggccgccag catcctgcag
 540
 atcaaaaacag tcategacga gtgcacgcgc atcgtgtcac agaactgggg cgatgtgttc
 600
 ccggggatcc aggactcggg ccaggacacg ccgcggggca ctcccagatc aggcacgtca
 660
 ggccagagca gcgacacgga gtcgggctac ctgcagagcc acccacagca cagcgtggac
 720
 aggatctact cggcactcta cgcg
 744

<210> 2642

<211> 176

<212> PRT

<213> Homo sapiens

<400> 2642

Met	Thr	Glu	Arg	Ile	His	Ser	Ile	Asn	Leu	His	Asn	Phe	Ser	Asn	Ser
1				5				10					15		
Val	Leu	Glu	Thr	Leu	Asn	Glu	Gln	Arg	Asn	Arg	Gly	His	Phe	Cys	Asp
			20				25					30			
Val	Thr	Val	Arg	Ile	His	Gly	Ser	Met	Leu	Arg	Ala	His	Arg	Cys	Val
		35				40					45				
Leu	Ala	Ala	Gly	Ser	Pro	Phe	Gln	Asp	Lys	Leu	Leu	Gly	Tyr		
	50			55					60						
Ser	Asp	Ile	Glu	Ile	Pro	Ser	Val	Val	Ser	Val	Gln	Ser	Val	Gln	Lys
65				70				75			80				
Leu	Ile	Asp	Phe	Met	Tyr	Ser	Gly	Val	Leu	Arg	Val	Ser	Gln	Ser	Glu
			85				90				95				
Ala	Leu	Gln	Ile	Leu	Thr	Ala	Ala	Ser	Ile	Leu	Gln	Ile	Lys	Thr	Val
		100				105					110				
Ile	Asp	Glu	Cys	Thr	Arg	Ile	Val	Ser	Gln	Asn	Val	Gly	Asp	Val	Phe
	115				120					125					
Pro	Gly	Ile	Gln	Asp	Ser	Gly	Gln	Asp	Thr	Pro	Arg	Gly	Thr	Pro	Glu
	130			135				140							
Ser	Gly	Thr	Ser	Gly	Gln	Ser	Ser	Asp	Thr	Glu	Ser	Gly	Tyr	Leu	Gln

145	150	155	160
Ser His Pro Gln His Ser Val Asp Arg Ile Tyr Ser Ala Leu Tyr Ala			
	165	170	175

<210> 2643
 <211> 4590
 <212> DNA
 <213> Homo sapiens

<400> 2643
 gggaataga gtccctggcg tgccgaggag gatcctgggt gcagccgctc agagaagcct
 60
 ctccgcgcaca ggaagtcgct gcgaggaggc gcgtgtgctg ggagttgaat ctcccgcctcc
 120
 cttgaggctg gggtttgcgtc tgttgacgcg gccgactaca atcccagagcc ctgccagccg
 180
 ggaacacgga ggggaaggag gaggagctta aaagaggcta ctgaacccca gttggccatg
 240
 gctgagggaat ttgtgacct caaggatgtc ggcattggact tcaccttggg agactgggag
 300
 cagctcgggc tggaaacagg ggacacgttc tgggacacag cgttggacaa ttgccaggac
 360
 ctcttcctgc tggaccccc aagaccacaac ctgacctccc acccagatgg cagtgaagat
 420
 ctggagcctc tggcaggagg aagcccagaa gcaacaagcc ctgatgtgac tgagaccaag
 480
 aactctctc tgatggagga tttcttcgaa gaaggattct cccaggagat tatagagatg
 540
 ttatccaagg atggcttctg gaactccaat ttcggagaag cctgtataga ggacacctgg
 600
 ttagatagtt tgctaggcga tccagaaagt ctcttgaggt ctgatattgc caccaacggg
 660
 gaaagtccca cggaatgcaa gagtcatgaa ttaaagagag gactcagtc tggtgccacc
 720
 gtttccacgg gagaagattc catgggtgcat aatgtttctg aaaagacct caccacagct
 780
 aagttctaagg aatatagggg tgagtttttc tctactccg accacagcca cgaggattct
 840
 gttcaggaag gggagaaacc atatcaatgt agtgaatgtg ggaagagctt cagtgaggag
 900
 taccgtctta ccagcactg gatcactcat actagggaga aaccactgt ccatcaagag
 960
 tgtgagcaag gttttgaccg gaatgcttcc ctttctgtgt atccgaaaaac tcacacgggc
 1020
 tacaaattct atgtgtgtaa tgaatatggg acaactttta gtcagagtac atacctgtgg
 1080
 catcagaaaa ctccactgg agaaaaacca tgtaagagtc aagatagtga cccccaccc
 1140
 agtcatgaca cacagcctgg tgagcatcag aaaactcaca cagatagtaa gtctacaac
 1200
 tgtaacgaat gcggcaaggc ttttaccgg atcttccacc ttactcgga ccagaagatc
 1260
 cacactcgga aacgctatga gtgttccaag tgccaggcga ccttcaactt gaaaaaac
 1320

ctcatccaac atcagaaaaac tcacgctgca aaaactacct ctgagtgca ggagtggtgg
1380
aagattttta ggcacagttc gctgctcatt gaaccaccagg ctcttcacgc tggagagggag
1440
ccttataagt gtaacgaacg tgggaaatcc ttcaggcata actctaccct aaagatccat
1500
cagagggttc acagtggaga gaagcccttac aaatgcagtg agtggtgggaa ggccttccac
1560
cggcacactc accttaatga acatcggcga attcatacag gctacagacc ccacaaatgt
1620
caggaatgag tcaggagttt cagccggccc tcacatctga tgcgacatca ggcattcac
1680
accgcagaaa agccctatag ctgtgctgaa tgcaaggaga ctttcagcga taacaatcgc
1740
cttgtgcaac accagaaaaat gcacactgtc aaaaccccat atgaatgtca ggagtgcgga
1800
gaacgcttca ttgtcggtc aacctgaag tgccacgaga gtgttcacgc cagagaaaaa
1860
caaggatttt ttgtgagtgga gaagatcttg gatcagaacc cagaacagaa agagaagtgc
1920
tttaagtgtg acaaatgtga gaaaaccttt agctgcagca aatacctaac tcagtacgag
1980
aggattcaca ccaggggagt gaagcccttt gaatgtgacc agtggtgggaa agcctttggc
2040
caaagtactc ggcctcatca ccatcaaaga atccactcta gagtggagct gtataaatgg
2100
ggtgagcaag ggaagccat cagcagtgcc tcccttatca aacttcagtc cttccacaca
2160
aaggagcacc cttttaaatg taacgaatgc ggaagacct tcagccacag tgcacacctc
2220
tcaaaacatc agttaattca cgctggagag aatcccttta atgtagtaa gtgtgacaga
2280
gtcttcaccc agagaaacta ccttggtcag catgagcgaa ctcattgccag aaagaagccg
2340
ttggtgtgtg acgaatgcgg gaaaacgttc cgtcagagct catgcctttc taagcatcag
2400
agaattcact caggtgagaa gccctatgta tgtgattact gcgggaaggc ctcggcctg
2460
agtgtgagc ttgtccgcca ccagagaatt cactctggag aaaagcctta tgtttgtcag
2520
gaatgcggga aagccttcac ccagagctca tgcctttcta ttcaccggag agttcacact
2580
ggggagaagc cctacagatg tggatgaatg gggaaagcct ttgccagaa agcaaatcta
2640
acacagcacc agagaattca cacaggggag aagccttact cctgtaatgt gtgtggcaca
2700
gcttttgttc tcagtgtcca tctcaaccag cacttgagag ttcacaccca ggagacactt
2760
tatcagtgtc aacgttgcca gaaagccttt cgggtgccact cgagcctcag ccgcatcag
2820
cgtgtacaca acaagcagca atactgcctg tagccattgg gtggcagcag agtcccagaa
2880
tatgaagacc ttactcggat gttgaaagt ggaaactatc ccattgcaag tttctctcca
2940

aataaatgca tctaaagatt gattagaaag tttgtgcgca tgtttttcat tataacaatg
3000
aaaacacaaa agtgggagaag ctgtacaacg tcaggattca gaggtaggct ctggagccag
3060
tctaccttga gttaaatccc acctctgccca tctactacct aagtgcacct gggaagggtca
3120
gaaaaatctc tcagggcctc ggtgtcctta tctgtaaaat gggcatcacc tacctcagag
3180
ggctttttctg aggattaaat aataaatgt gaagcactta gaactgatgg ccagcacatg
3240
agggtctacc aagtgtaaag cacaaatata catcagctat agcacaataa tacttgtgtt
3300
acaagaaagg aattagtaat ctgtgtttac tgtagttaat gttcttcaaa tgtatcgctt
3360
ttaatttaag ttttcccttt ttacagtttt tctccagcac ttactcttct ttaagtgcct
3420
ggcctttttt tgtcccttta tctctcctgg tttttttctt aagccccaga aagccaaaaa
3480
gaacatgtaa actcttcacc tcaactagct acaaccttcc actcctaacc tcccaagctt
3540
ctcacttaaa gaggaactccc tatcccacaa acacatgctc cctcttccta tgaccttcct
3600
ccattttaaca gtgttggtta tgcaataaga cacccaattt tcatggggag ttgacaccaa
3660
aacacagctg gattccatca ggaaagctgc attgatcagg gtgttaaccg catatgaaac
3720
aaccatagtg gaagacatac ttaggggtca aacctgtggt gtgtggaagt gacctgtggg
3780
atgtcatcat tcaccattta tccaggatgg ccgctcacca ggcaatttgc taggtctggg
3840
ggcgggtagt atccatacac tatgcactac tgctctgaag ctcttggaat cagaaatgaa
3900
ccattttca tcgacgattg ctgttagttg acaagtgaca tcttgaaaat gccacattcc
3960
ctcatgtcac aggaagttct gggatcacca aggattgttg gagagtcag tgagatggaa
4020
ccacacaacc agttccctac cagtgtcttg tcagctctgg gtgtttgttc cctgccacta
4080
agtggctcag tcacaccttt gctgaaacac agtagtctta tgaaaagcac tggacacata
4140
ctttgaatac ctttcataat ttaggtgctg aaaatgggtga gggagtgaagt gctctgcacc
4200
cttgggcttt tcaactcttg cacctggagt tctgctggtt aagtttgtta aacttagttg
4260
aaactgggaa cctgttggct aaccttggg gccttacact gtttttcaaa tgggttgcaac
4320
atttaacttc tcgcacatgg ttcccgctct ctggagctct gtcttgcagg ggagatgggc
4380
atgttgtata ccaaaagagt gtacaaagt ttgcagggct gtgacacaat agggactcta
4440
tggaaaactg gcagccattg ggtgtggggg cagtctgtaa atcagtcacc tgttgtctg
4500
caggccaagg tagaaaacgc ctcctgtgtg gcataattgt tgggtctctg attaaagttt
4560

tgagtctctaaa aaaaaaaaaa aaaaaaaaaa
4590

<210> 2644

<211> 871

<212> PRT

<213> Homo sapiens

<400> 2644

Met	Ala	Glu	Glu	Phe	Val	Thr	Leu	Lys	Asp	Val	Gly	Met	Asp	Phe	Thr
1				5					10					15	
Leu	Gly	Asp	Trp	Glu	Gln	Leu	Gly	Leu	Glu	Gln	Gly	Asp	Thr	Phe	Trp
			20					25					30		
Asp	Thr	Ala	Leu	Asp	Asn	Cys	Gln	Asp	Leu	Phe	Leu	Leu	Asp	Pro	Pro
			35				40					45			
Arg	Pro	Asn	Leu	Thr	Ser	His	Pro	Asp	Gly	Ser	Glu	Asp	Leu	Glu	Pro
			50			55					60				
Leu	Ala	Gly	Gly	Ser	Pro	Glu	Ala	Thr	Ser	Pro	Asp	Val	Thr	Glu	Thr
65				70					75					80	
Lys	Asn	Ser	Pro	Leu	Met	Glu	Asp	Phe	Phe	Glu	Glu	Gly	Phe	Ser	Gln
				85					90				95		
Glu	Ile	Ile	Glu	Met	Leu	Ser	Lys	Asp	Gly	Phe	Trp	Asn	Ser	Asn	Phe
			100					105					110		
Gly	Glu	Ala	Cys	Ile	Glu	Asp	Thr	Trp	Leu	Asp	Ser	Leu	Leu	Gly	Asp
			115				120					125			
Pro	Glu	Ser	Leu	Leu	Arg	Ser	Asp	Ile	Ala	Thr	Asn	Gly	Glu	Ser	Pro
			130				135				140				
Thr	Glu	Cys	Lys	Ser	His	Glu	Leu	Lys	Arg	Gly	Leu	Ser	Pro	Val	Ser
145				150					155					160	
Thr	Val	Ser	Thr	Gly	Glu	Asp	Ser	Met	Val	His	Asn	Val	Ser	Glu	Lys
				165					170				175		
Thr	Leu	Thr	Pro	Ala	Lys	Ser	Lys	Glu	Tyr	Arg	Gly	Glu	Phe	Phe	Ser
			180					185					190		
Tyr	Ser	Asp	His	Ser	Gln	Gln	Asp	Ser	Val	Gln	Glu	Gly	Glu	Lys	Pro
			195				200					205			
Tyr	Gln	Cys	Ser	Glu	Cys	Gly	Lys	Ser	Phe	Ser	Gly	Ser	Tyr	Arg	Leu
			210				215				220				
Thr	Gln	His	Trp	Ile	Thr	His	Thr	Arg	Glu	Lys	Pro	Thr	Val	His	Gln
225				230					235					240	
Glu	Cys	Glu	Gln	Gly	Phe	Asp	Arg	Asn	Ala	Ser	Leu	Ser	Val	Tyr	Pro
			245						250				255		
Lys	Thr	His	Thr	Gly	Tyr	Lys	Phe	Tyr	Val	Cys	Asn	Glu	Tyr	Gly	Thr
			260				265					270			
Thr	Phe	Ser	Gln	Ser	Thr	Tyr	Leu	Trp	His	Gln	Lys	Thr	His	Thr	Gly
			275				280					285			
Glu	Lys	Pro	Cys	Lys	Ser	Gln	Asp	Ser	Asp	His	Pro	Pro	Ser	His	Asp
			290				295				300				
Thr	Gln	Pro	Gly	Glu	His	Gln	Lys	Thr	His	Thr	Asp	Ser	Lys	Ser	Tyr
305				310						315				320	
Asn	Cys	Asn	Glu	Cys	Gly	Lys	Ala	Phe	Thr	Arg	Ile	Phe	His	Leu	Thr
			325						330				335		
Arg	His	Gln	Lys	Ile	His	Thr	Arg	Lys	Arg	Tyr	Glu	Cys	Ser	Lys	Cys
			340					345				350			
Gln	Ala	Thr	Phe	Asn	Leu	Arg	Lys	His	Leu	Ile	Gln	His	Gln	Lys	Thr

[illegible]

785		790		795		800
Leu Thr Gln His	Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Ser Cys					
	805			810		815
Asn Val Cys Gly Lys Ala Phe Val	Leu Ser Ala His Leu Asn Gln His					
	820		825		830	
Leu Arg Val His Thr Gln Glu Thr	Leu Tyr Gln Cys Gln Arg Cys Gln					
	835		840		845	
Lys Ala Phe Arg Cys His Ser Ser	Leu Ser Arg His Gln Arg Val His					
	850		855		860	
Asn Lys Gln Gln Tyr Cys Leu						
865		870				

<210> 2645

<211> 1018

<212> DNA

<213> Homo sapiens

<400> 2645

ctgaccacag agcgctgctc ccgagaaccc tgcacccctc aatggagtaa attaccataa
 60
 agcctcttcc ttacccatgc tttgggtgtg taacagctga ggctattcgt cggtgacctg
 120
 tgggactcga gctattcctg cagctcagca gacctcctgg ccgtggcaga ctctcgcgtt
 180
 atgacccggc tgctgggcta cgtggacccc ctggatccca gctttgtggc tgccgtcatc
 240
 accatcacct tcaatccgct ctactggaat gtggttgca gatgggaaca caagaccgcg
 300
 aagctgagca gggccttcgg atccccctac ctggcctgct actctctaag catcaccatc
 360
 ctgctcctga acttctctcg ctgcactgc ttcacgcagg ccatgctgag ccagcccagg
 420
 atggagagcc tggacacccc cgcggcctac agcctggggc tcgcgctcct gggactgggc
 480
 gtcgctctcg tgctctccag ctctcttgca ctggggttgc ctggaacttt cctaggtgat
 540
 tacttcggga tcttcaagga ggcgagagtg accgtgttcc ccttcaacat cctggaacac
 600
 ccatgtact ggggaagcac agccaactac ctgggctggg ccatcatgca gcgcagcccc
 660
 acgggcctgc tcttgacggt gctggtggcc ctcacctata taatggctct cctatacgaa
 720
 gagcccttca ccgctgagat ctaccggcag aaagcctccg ggtcccaaaa gaggagctga
 780
 ttgagctgca acagctttgc tgaaggcctg gccagcctcc tggcctgccc caagtggcag
 840
 gccctgcgca gggcgagaat ggtgcttgc gctcagggct cgccccggc gtgggctgcc
 900
 ccagtgctt ggaacctgct gccttgggga ccttggagct gccgacatat ggccattgag
 960
 ctccaaccca cacattccca ttcaccaata aaggcaccct gacccccaaa aaaaaaaa
 1018

<210> 2646

<211> 199
 <212> PRT
 <213> Homo sapiens

<400> 2646
 Met Thr Arg Leu Leu Gly Tyr Val Asp Pro Leu Asp Pro Ser Phe Val
 1 5 10 15
 Ala Ala Val Ile Thr Ile Thr Phe Asn Pro Leu Tyr Trp Asn Val Val
 20 25 30
 Ala Arg Trp Glu His Lys Thr Arg Lys Leu Ser Arg Ala Phe Gly Ser
 35 40 45
 Pro Tyr Leu Ala Cys Tyr Ser Leu Ser Ile Thr Ile Leu Leu Leu Asn
 50 55 60
 Phe Leu Arg Ser His Cys Phe Thr Gln Ala Met Leu Ser Gln Pro Arg
 65 70 75 80
 Met Glu Ser Leu Asp Thr Pro Ala Ala Tyr Ser Leu Gly Leu Ala Leu
 85 90 95
 Leu Gly Leu Gly Val Val Leu Val Leu Ser Ser Phe Phe Ala Leu Gly
 100 105 110
 Phe Ala Gly Thr Phe Leu Gly Asp Tyr Phe Gly Ile Leu Lys Glu Ala
 115 120 125
 Arg Val Thr Val Phe Pro Phe Asn Ile Leu Asp Asn Pro Met Tyr Trp
 130 135 140
 Gly Ser Thr Ala Asn Tyr Leu Gly Trp Ala Ile Met His Ala Ser Pro
 145 150 155 160
 Thr Gly Leu Leu Leu Thr Val Leu Val Ala Leu Thr Tyr Ile Met Ala
 165 170 175
 Leu Leu Tyr Glu Glu Pro Phe Thr Ala Glu Ile Tyr Arg Gln Lys Ala
 180 185 190
 Ser Gly Ser His Lys Arg Ser
 195

<210> 2647
 <211> 1368
 <212> DNA
 <213> Homo sapiens

<400> 2647
 acgcgtttctg atggtgactt ctgcatagt accaacggca ataaagaaaa gttatttcca
 60
 catgtgacac caaaaggaat taatggtata gactttaaag gggaagcgat aactttttaa
 120
 gcaactactg ctggaatcct tgcaacactt tctcattgta ttgaactaat ggttaaacgt
 180
 gaggcacagct ggcagaagag actggataag gaaactgaga agaaaagaag aacagaggaa
 240
 gcatataaaa atgcaatgac agaacttaag aaaaaatccc actttggagg accagattat
 300
 gaagaaggcc ctaacagtct gattaatgaa gaagagtctt ttgatgctgt tgaagctgct
 360
 cttgacagac aagataaaat agaagaacag tcacagagtg aaaaggtgag attacattgg
 420
 cctacatcct tgcctctctg agatgccttt tcttctgtgg ggacacatag atttgcctaa
 480

aaggttgaag agatggtgca gaaccacatg acttactcat tacaggatgt aggcggagat
 540
 gccaatggc agttggttgt agaagaagga gaaatgaagg taccagaag agaagtagaa
 600
 gaaatggga ttgtctcgga tcctttaaaa gctacccatg cagttaaagg cgtcacagga
 660
 catgaagtct gcaattattt ctggaatgtt gacgttcgca atgactggga aacaactata
 720
 gaaaactttc atgtggtgga aacattagct gataatgcaa tcatcattta tcaaacacac
 780
 aagagggtgt ggcctgcttc tcagcgagac gtattatata tttctgcat tcgaaagata
 840
 ccagccttga ctgaaaaatga cctgaaact tggatagttt gtaatttttc tgtggatcat
 900
 gacagtgtct ctctaaacaa ccgatgtgtc cgtgccaaaa taaatgttgc tatgatttgt
 960
 caaaccttgg taagcccacc agagggaaac caggaaatta gcagggacaa cattctatgc
 1020
 aagattacat atgtagctaa tgtgaaccct ggaggatggg caccagcctc agtgtaagg
 1080
 gcagtggcaa agcgagagta tcctaaattt ctaaacgctt ttacttctta cgtccaagaa
 1140
 aaaactgcag gaaagcctat tttgttctag tattaacagt gactgaagca aggctgtgtg
 1200
 acattccatg ttggagaaaa aaagaaaaaa aaagctgaat gctctaagct ggaacgtagg
 1260
 atctatagcc ttgtctgtgg cccaagacct tggccttggg tacaaaaatg acaaaatatt
 1320
 gcaatagcaa agctgaacat ctaacactag ctatctcttg ctatgctt
 1368

<210> 2648

<211> 389

<212> PRT

<213> Homo sapiens

<400> 2648

Thr Arg Ser Asp Gly Asp Phe Leu His Ser Thr Asn Gly Asn Lys Glu
 5 10 15
 Lys Leu Phe Pro His Val Thr Pro Lys Gly Ile Asn Gly Ile Asp Phe
 20 25 30
 Lys Gly Glu Ala Ile Thr Phe Lys Ala Thr Thr Ala Gly Ile Leu Ala
 35 40 45
 Thr Leu Ser His Cys Ile Glu Leu Met Val Lys Arg Glu Asp Ser Trp
 50 55 60
 Gln Lys Arg Leu Asp Lys Glu Thr Glu Lys Lys Arg Arg Thr Glu Glu
 65 70 75 80
 Ala Tyr Lys Asn Ala Met Thr Glu Leu Lys Lys Lys Ser His Phe Gly
 85 90 95
 Gly Pro Asp Tyr Glu Glu Gly Pro Asn Ser Leu Ile Asn Glu Glu Glu
 100 105 110
 Phe Phe Asp Ala Val Glu Ala Ala Leu Asp Arg Gln Asp Lys Ile Glu
 115 120 125
 Glu Gln Ser Gln Ser Glu Lys Val Arg Leu His Trp Pro Thr Ser Leu

```

      130              135              140
Pro Ser Gly Asp Ala Phe Ser Ser Val Gly Thr His Arg Phe Val Gln
145
Lys Val Glu Glu Met Val Gln Asn His Met Thr Tyr Ser Leu Gln Asp
      165              170              175
Val Gly Gly Asp Ala Asn Trp Gln Leu Val Val Glu Glu Gly Glu Met
      180              185              190
Lys Val Tyr Arg Arg Glu Val Glu Glu Asn Gly Ile Val Leu Asp Pro
      195              200              205
Leu Lys Ala Thr His Ala Val Lys Gly Val Thr Gly His Glu Val Cys
      210              215              220
Asn Tyr Phe Trp Asn Val Asp Val Arg Asn Asp Trp Glu Thr Thr Ile
225
Glu Asn Phe His Val Val Glu Thr Leu Ala Asp Asn Ala Ile Ile Ile
      245              250              255
Tyr Gln Thr His Lys Arg Val Trp Pro Ala Ser Gln Arg Asp Val Leu
      260              265              270
Tyr Leu Ser Val Ile Arg Lys Ile Pro Ala Leu Thr Glu Asn Asp Pro
      275              280              285
Glu Thr Trp Ile Val Cys Asn Phe Ser Val Asp His Asp Ser Ala Pro
      290              295              300
Leu Asn Asn Arg Cys Val Arg Ala Lys Ile Asn Val Ala Met Ile Cys
305
Gln Thr Leu Val Ser Pro Pro Glu Gly Asn Gln Glu Ile Ser Arg Asp
      325              330              335
Asn Ile Leu Cys Lys Ile Thr Tyr Val Ala Asn Val Asn Pro Gly Gly
      340              345              350
Trp Ala Pro Ala Ser Val Leu Arg Ala Val Ala Lys Arg Glu Tyr Pro
      355              360              365
Lys Phe Leu Lys Arg Phe Thr Ser Tyr Val Gln Glu Lys Thr Ala Gly
      370              375              380
Lys Pro Ile Leu Phe
385

<210> 2649
<211> 1299
<212> DNA
<213> Homo sapiens

<400> 2649
nnnggatccaa gcatggaatg ctgcgcgtcgg gcaactcctg gcacactgct cctcttttctg
60
gctttctctgc tctctgagttc caggaccgca cgctccgagg aggaccggga cggcctatgg
120
gatgcctctgg gcccatggag tgaatgctca cgcacctgog ggggtggggc ctcctactct
180
ctgaggcgct gcctgagcag caagagctgt gaaggaagaa atatccgata cagaacatgc
240
agtaaatgtg actgcccacc agaagcaggt gatttccgag ctacagcaatg ctacagctcat
300
aatgatgtca agcccatgg ccagttttat gaatggcttc ctgtgtctaa tgacctgtac
360
aaccatgtt cactcaagtg ccaagccaaa ggaacaacc tggttgttga actagcacct
420

```

aaggtccttag atggtaacgc ttgctataca gaatctttgg atatgtgcat cagtgggtta
 480
 tgccaaattg ttggctgcga tcaccagctg ggaagcaccg tcaaggaaga taactgtggg
 540
 gtctgcaacg gagatgggtc cacctgccgg ctgggtccgag ggcagtataa atcccagctc
 600
 tccgcaacca aatcggatga tactgtgggt gcaattccct atggaagtag acatattcgc
 660
 cttgtcttaa aaggtcctga tcacttatat ctggaaacca aaacctcca ggggactaaa
 720
 ggtgaaaaca gtctcagctc cacaggaact ttccttgtgg acaattctag tgtggacttc
 780
 cagaaatttc cagacaaaga gatactgaga atggctggac cactcacage agatttcatt
 840
 gtcaagattc gtaactcggg ctccgctgac agtacagtcc agttcatett ctatcaacc
 900
 atcatccacc gatggaggga gacggatttc ttctcttgct cagcaacctg tggaggaggt
 960
 tatcagctga catcggtgta gtgctacgat ctgaggagca accgtgtggt tctgacccaa
 1020
 tactgtcact attaccaga gaacatcaaa cccaaacca agcttcagga gtgcaacttg
 1080
 gatccttgte cagccagtga cggatacaag cagatcatgc cttatgacct ctaccatccc
 1140
 ctctctcggt gggaggccac cccatggacc gcgtgtctct cctcgtgtgg ggggggcate
 1200
 cagagcccg gcagtttcct gtgtggagga ggacatccag gggcatgtca cttcagtgga
 1260
 agagtggaaa tgcattgtaca ccctaagat gcccatcgc
 1299

<210> 2650

<211> 428

<212> PRT

<213> Homo sapiens

<400> 2650

Xaa	Asp	Pro	Ser	Met	Glu	Cys	Cys	Arg	Arg	Ala	Thr	Pro	Gly	Thr	Leu
1				5						10				15	
Leu	Leu	Phe	Leu	Ala	Phe	Leu	Leu	Leu	Ser	Ser	Arg	Thr	Ala	Arg	Ser
			20					25					30		
Glu	Glu	Asp	Arg	Asp	Gly	Leu	Trp	Asp	Ala	Trp	Gly	Pro	Trp	Ser	Glu
			35				40					45			
Cys	Ser	Arg	Thr	Cys	Gly	Gly	Gly	Ala	Ser	Tyr	Ser	Leu	Arg	Arg	Cys
	50					55					60				
Leu	Ser	Ser	Lys	Ser	Cys	Glu	Gly	Arg	Asn	Ile	Arg	Tyr	Arg	Thr	Cys
				70						75				80	
Ser	Asn	Val	Asp	Cys	Pro	Pro	Glu	Ala	Gly	Asp	Phe	Arg	Ala	Gln	Gln
				85					90					95	
Cys	Ser	Ala	His	Asn	Asp	Val	Lys	His	His	Gly	Gln	Phe	Tyr	Glu	Trp
			100					105				110			
Leu	Pro	Val	Ser	Asn	Asp	Pro	Asp	Asn	Pro	Cys	Ser	Leu	Lys	Cys	Gln
		115				120						125			
Ala	Lys	Gly	Thr	Thr	Leu	Val	Val	Glu	Leu	Ala	Pro	Lys	Val	Leu	Asp

130 135 140
 Gly Thr Arg Cys Tyr Thr Glu Ser Leu Asp Met Cys Ile Ser Gly Leu
 145 150 155 160
 Cys Gln Ile Val Gly Cys Asp His Gln Leu Gly Ser Thr Val Lys Glu
 165 170 175
 Asp Asn Cys Gly Val Cys Asn Gly Asp Gly Ser Thr Cys Arg Leu Val
 180 185 190
 Arg Gly Gln Tyr Lys Ser Gln Leu Ser Ala Thr Lys Ser Asp Asp Thr
 195 200 205
 Val Val Ala Ile Pro Tyr Gly Ser Arg His Ile Arg Leu Val Leu Lys
 210 215 220
 Gly Pro Asp His Leu Tyr Leu Glu Thr Lys Thr Leu Gln Gly Thr Lys
 225 230 235 240
 Gly Glu Asn Ser Leu Ser Ser Thr Gly Thr Phe Leu Val Asp Asn Ser
 245 250 255
 Ser Val Asp Phe Gln Lys Phe Pro Asp Lys Glu Ile Leu Arg Met Ala
 260 265 270
 Gly Pro Leu Thr Ala Asp Phe Ile Val Lys Ile Arg Asn Ser Gly Ser
 275 280 285
 Ala Asp Ser Thr Val Gln Phe Ile Phe Tyr Gln Pro Ile Ile His Arg
 290 295 300
 Trp Arg Glu Thr Asp Phe Phe Pro Cys Ser Ala Thr Cys Gly Gly Gly
 305 310 315 320
 Tyr Gln Leu Thr Ser Ala Glu Cys Tyr Asp Leu Arg Ser Asn Arg Val
 325 330 335
 Val Ala Asp Gln Tyr Cys His Tyr Tyr Pro Glu Asn Ile Lys Pro Lys
 340 345 350
 Pro Lys Leu Gln Glu Cys Asn Leu Asp Pro Cys Pro Ala Ser Asp Gly
 355 360 365
 Tyr Lys Gln Ile Met Pro Tyr Asp Leu Tyr His Pro Leu Pro Arg Trp
 370 375 380
 Glu Ala Thr Pro Trp Thr Ala Cys Ser Ser Ser Cys Gly Gly Gly Ile
 385 390 395 400
 Gln Ser Pro Gly Ser Phe Leu Cys Gly Gly Gly His Pro Gly Ala Cys
 405 410 415
 His Phe Ser Gly Arg Val Glu Met His Val His Pro
 420 425

<210> 2551

<211> 628

<212> DNA

<213> Homo sapiens

<400> 2551

tacacagtc c tgcggctgg cttgttgggg tgccgaggct caggcagcat gacgacggag
 60
 acctttgtga agggatataa gcttggggctc aagaatctga accttatctt cattgtgctg
 120
 gagacaggcc gaggatccaa gacaaaggac gggcatgagg ttggacacctg caaagggtgg
 180
 gacaaacag gcagcatcaa tatctctgtc tgggacgatg ttggcaatct gatcagccct
 240
 ggggacatta tccggctcac caaagggtac gcttcagttt tcaaagggtg totgacacta
 300

tatactggcc gtgggggtga tctgcagaag attggagaat tctgcatgga ttattctgag
 360
 gttcctaact tcagtgagcc aaacccagag tacagcaccc agcaggcacc caacaaggcg
 420
 gtgcagaacg acagcaaccc ttcagcttcc cagcctacca ctggaccctc tgctgcctct
 480
 ccagcctctg agaaccagaa tgggaatgga atgagtgtccc caccaggttt ccgggtgggtg
 540
 gccccatccc ccttcatact ccttcccacc caccagcac ccgaatcact cgaagccagc
 600
 ccaaccacac acctgcaggc ccgctctg
 628

<210> 2652

<211> 209

<212> PRT

<213> Homo sapiens

<400> 2652

Tyr Thr Val Leu Pro Ala Gly Leu Val Gly Cys Arg Gly Ser Gly Ser
 1 5 10 15
 Met Thr Thr Glu Thr Phe Val Lys Gly Ile Lys Pro Gly Leu Lys Asn
 20 25 30
 Leu Asn Leu Ile Phe Ile Val Leu Glu Thr Gly Arg Val Thr Lys Thr
 35 40 45
 Lys Asp Gly His Glu Val Arg Thr Cys Lys Val Ala Asp Lys Thr Gly
 50 55 60
 Ser Ile Asn Ile Ser Val Trp Asp Asp Val Gly Asn Leu Ile Gln Pro
 65 70 75 80
 Gly Asp Ile Ile Arg Leu Thr Lys Gly Tyr Ala Ser Val Phe Lys Gly
 85 90 95
 Cys Leu Thr Leu Tyr Thr Gly Arg Gly Gly Asp Leu Gln Lys Ile Gly
 100 105 110
 Glu Phe Cys Met Asp Tyr Ser Glu Val Pro Asn Phe Ser Glu Pro Asn
 115 120 125
 Pro Glu Tyr Ser Thr Gln Gln Ala Pro Asn Lys Ala Val Gln Asn Asp
 130 135 140
 Ser Asn Pro Ser Ala Ser Gln Pro Thr Thr Gly Pro Ser Ala Ala Ser
 145 150 155 160
 Pro Ala Ser Glu Asn Gln Asn Gly Asn Gly Met Ser Ala Pro Pro Gly
 165 170 175
 Phe Arg Val Val Ala His Ile Pro Leu Ile Leu Pro Pro Thr His Pro
 180 185 190
 Ala Pro Glu Ser Leu Glu Ala Ser Pro Thr Thr His Leu Gln Ala Arg
 195 200 205
 Leu

<210> 2653

<211> 2103

<212> DNA

<213> Homo sapiens

<400> 2653

natattgggg ccggcggcgg gtgggagagt tctacgaggg aggggaaagcg gttggacgtg
60
ttcgtcttggg ttctctgtgc ggcagccacc tcgcaatctc tctgcatcga tcgccgctcg
120
caagctactg accgtactcg ggcgtattag gagcgcgctt ccagcctcac accccacggt
180
getgttttcg acttcagaaa ggatctagcc tcagcacaga agcgcctcag gcgcggcgca
240
aagctcagagc ggaaggcggg ggcggccgga gcctctctcg ggggagccgc gcctgaggag
300
gcggaagaac cccctgacg cgaactggcgt gtgcttctcg cccccaccgc cctcccgcct
360
ctcaccgggg ccgtccctgg ccactgcccc tgccgcggag gcagcggcgg cagcggtctt
420
cctttccaca gccggcgctc cgcgacccgc ttggctcctg agcccgctcg gtaggctctc
480
ctcaggttcc cgtctctcac ccttccctc acctcttct tctgtaacc gtcccagacc
540
ccaccogagc ccggcgccctc agctgcccc ggccatggcg tcgggagcca ccttgaaaag
600
gactctggat ttgcacccgc tgttgagccc ggctccccg aagcgaggc gatgtgcgc
660
attgtcggcg ccacccctcg ccgctgcctc ccggttgctg gcggccgcgg ccaccgcgc
720
ctccttctcc getgcggcgc cctgcgcgca gaagtatctc cgaatggagc catccccctt
780
cggcgacgcc tcttcccgcc tcaccacaga acaaattctg tacaacataa aacaagagta
840
taaacgaatg cagaagagaa gacatttaga aacgagtttc caacagacag atccgtgttg
900
tacttctgat gcacagccac atgcatttct cctcagtggc ccagcttcac cagggacttc
960
atctgcagca tctcaccat taacaaaaga acagccctta ttactctac ggcagggttg
1020
gatgatctgt gaaagtttgt tgaagaagc tgaagagaaa gttcgagaag aatatgaaga
1080
aatattgaac acaaaacttg cagaacaata tgatgcgttt gtgaagtta cgcgatcat
1140
aataatgcga cgaatggag aacagcctgc tagctatgtt tcatgaatca cgtatcctgc
1200
atttgtgggc tgcttgttgc cttgttgagt tgttgcaaga ggtcccaatt atgacatgca
1260
gcaatgcca tacccttct gtgaatacag gttatttcaa gctttcgtca ttggcaacca
1320
ctcttaggca gcagcaactg gttttggaaa ttccctgat gtcagtacca cctggatgtg
1380
gacctttgct acctgtatta ataccagtgg cctcattttg ctgtatcatt acaatttggc
1440
ttcttatatt aatgtttgaa aaggattaaa gctggatttc tagaacatgc ccttactg
1500
ttgtgtaaat aaaactgtag aatgacact cagatgaagt tagtgtgatt ttaattgtgc
1560
actacaaccg agctgtaacc agttactaat tttagaatgt aatcccagga caatattaa
1620


```

caaatagcct gcagtgcctc ctgtgaaata gtgaaggagg agggcatttc tgtattccag
1680
gaattctctgg ggtttcagaa tgggtttgta tgattttttt tttttttttg tagttttatt
1740
tattctatca gtctttttta caaatgttta ttgctgcatt tttttttttc cagtgtatca
1800
ttgttttact gcccttgtag tactggaatt tagttggaag aataaaacat ttactttctat
1860
ttgctttggt tcttaatgta cagatggggg tagtatttga ataaagttag tgttttaaaa
1920
cgttaagcatt tccaggaat cagtgaagtt aattttctaa gatttgagtg ctgtttcaaa
1980
acactgagtt ctgattctaa atgccttctt ctgctgggag cggtgggtca tgcctgtaat
2040
cccagcactt tgggaggccg aggcgggagg atcacgaggt caggagatcg agactatcct
2100
ggc
2103

```

```

<210> 2654
<211> 70
<212> PRT
<213> Homo sapiens

```

```

<400> 2654
Tyr Leu Asn Lys Val Gly Val Leu Lys Arg Lys His Phe Pro Gly Ile
1 5 10 15
Ser Glu Val Asn Phe Leu Arg Phe Glu Cys Cys Phe Lys Thr Leu Ser
20 25 30
Ser Asp Ser Lys Cys Leu Leu Leu Gly Ala Val Ala His Ala Cys
35 40 45
Asn Pro Ser Thr Leu Gly Gly Arg Gly Gly Arg Ile Thr Arg Ser Gly
50 55 60
Asp Arg Asp Tyr Pro Gly
65 70

```

```

<210> 2655
<211> 1752
<212> DNA
<213> Homo sapiens

```

```

<400> 2655
tttttttttc cagatctttg agttcattct cgatttttgt gattaattcc ctgagttcat
60
caagattagt gcaaaataagc tgaactctg gtacagtagg tgactttatg acagtttttc
120
tcttctttgt gattgctttt ttagagacgg atttttttcc agatttgtag tctttgtgtt
180
ttgctttttt tttgatgatc aataacttat tctggatctc aggtttgtaa gacttgaatg
240
caagagaatg aagaccttca cgctttctct gtaagttttc attcaaaaca tctttcaatt
300
tctttttttt cttttttctc ttttttgccc tcatttttagt tagtttgagt tctttgtggc
360

```

tctgtagtga ctgctctaata agaatatccc ttacaacttt gtggcagtta atttctggat
 420
 gatcactgtg acttccattt acatgtattt ggcaagattt tagagtattt tcttttaaatg
 480
 gactgggttc aatcttttatt ctggaagctt caccgtattt ttctgtattt tctataaacc
 540
 ttatttcacc tggactgaga ggctctccaa agccagtaac tccccctgga ctctctgggt
 600
 tctctaaatt tcttttacc aaatcagttt ttttaatttc acaaggcctg cgaattctaa
 660
 ttctcatagt ttgattttact cccatttcaa cagagatgtc atgattatcc aagatcattt
 720
 tagcaggaca gcaagctgga tcaaaattat ttctctgctc ttctctgaag gaagagggca
 780
 ggctatctct gctacatcta tgttctccat tacttgtact aacatagtca cacttcaatt
 840
 tctccaattt aatccgaggt actctttgta ttttaattgg tggaattgga aattctgggg
 900
 cctgaaagggt tctctgttta taaatccgta catctgcacc acagaactgt ggaaaatgta
 960
 cataagcagt ctccaaataa tcataacgaa gaataactgc cctgcattca tggataggct
 1020
 gtccaagtac agcatcttga acttctttat gtgtatcata cacaaagtca caaagacctt
 1080
 taagtagcca cacttttttg taaaaggtta gtctgtgaaa aggtttttct tccaatggat
 1140
 taacttctcc aagaacttta aaaaactgag gacacaaccc cagtttttca gcacagttat
 1200
 caggattttc agtttgcctt acagcagtg accactgttg tactttctgc ctacgcgtg
 1260
 ctctccagggt cctataaggc aaagtaggtc ttcgatgtaa ggtaggtctg cgtgggggag
 1320
 gacttaatat agaagtcatt attttcgata gaaaagcatt aactgaggc atcagaagac
 1380
 aacgttccaa ttcgtaaaag actatttctg gcaaaatttg aatttgctga gctaacaaca
 1440
 ggaaatgccc aatagctgga atttccaca tggctctcat acaagtggga gctgcttgag
 1500
 ctagaagttt tctttcccat tcttctattt ctttttgact agcttcttct gettcttttc
 1560
 ttctctgctc ccgaagccta aagaaattta acaaaattata ctattattat tcagagggta
 1620
 ccataaaatg ataaatttta agtatattta tctttagtca aaaagcgaat caactgtcct
 1680
 agttttattt atttatttat ttgagacaga gtctcgctct gtcccccagg ctgtagtgca
 1740
 gtgatgcaat ct
 1752

<210> 2656

<211> 493

<212> PRT

<213> Homo sapiens

<400> 2656

```

Met Glu Thr Met Trp Glu Ile Pro Ala Ile Gly His Phe Leu Cys Leu
1      5      10
Ala Gln Gln Ile Leu Asn Leu Pro Glu Ile Val Phe Tyr Glu Leu Glu
20     25     30
Arg Cys Leu Leu Met Pro Gln Cys Asn Ala Phe Leu Ser Lys Ile Met
35     40     45
Thr Ser Leu Leu Ser Pro Pro His Arg Arg Pro Thr Leu His Arg Arg
50     55     60
Pro Thr Leu Pro Tyr Arg Thr Trp Glu Ala Ala Leu Arg Gln Lys Val
65     70     75     80
Gln Gln Trp Tyr Thr Ala Val Gly Gln Thr Glu Asn Pro Asp Asn Cys
85     90     95
Ala Glu Lys Leu Gly Leu Cys Pro Gln Phe Phe Lys Val Leu Gly Glu
100    105    110
Val Asn Pro Leu Glu Glu Lys Pro Phe His Glu Leu Pro Phe Tyr Gln
115    120    125
Lys Val Trp Leu Leu Lys Gly Leu Cys Asp Phe Val Tyr Asp Thr His
130    135    140
Lys Glu Val Gln Asp Ala Val Leu Gly Gln Pro Ile His Glu Cys Arg
145    150    155    160
Ala Val Ile Leu Arg Tyr Asp Tyr Leu Glu Thr Ala Tyr Val His Phe
165    170    175
Pro Gln Phe Cys Gly Ala Asp Val Arg Ile Tyr Lys Gln Arg Pro Phe
180    185    190
Gln Ala Pro Glu Phe Pro Ile Pro Pro Ile Lys Ile Gln Arg Val Pro
195    200    205
Arg Ile Lys Leu Glu Lys Leu Lys Cys Asp Tyr Val Ser Thr Ser Asn
210    215    220
Gly Glu His Arg Cys Ser Arg Asp Ser Leu Pro Ser Ser Phe Lys Lys
225    230    235    240
Glu Gln Glu Asn Asn Phe Asp Pro Ala Cys Cys Pro Ala Lys Met Ile
245    250    255
Leu Asp Asn His Asp Ile Ser Val Glu Met Gly Val Lys Ser Asn Tyr
260    265    270
Glu Ile Arg Ile Arg Arg Pro Cys Glu Ile Lys Lys Thr Asp Cys Cys
275    280    285
Lys Glu Asn Leu Glu Lys Pro Arg Ser Pro Gly Glu Val Thr Gly Phe
290    295    300
Gly Glu Pro Leu Ser Pro Gly Glu Ile Arg Phe Ile Glu Asn Gln Glu
305    310    315    320
Lys Tyr Gly Glu Ala Ser Arg Ile Lys Ile Glu Pro Ser Pro Leu Lys
325    330    335
Glu Asn Thr Leu Lys Ser Cys Gln Ile His Val Asn Gly Ser His Ser
340    345    350
Asp His Pro Glu Ile Asn Cys His Lys Val Val Arg Asp Ile Leu Leu
355    360    365
Glu Gln Ser Leu Gln Ser His Lys Lys Leu Lys Leu Thr Lys Met Arg
370    375    380
Ala Lys Lys Lys Lys Lys Lys Lys Lys Leu Lys Asp Val Leu Asn
385    390    395    400
Glu Asn Leu Gln Arg Lys Arg Glu Gly Leu His Ser Leu Ala Phe Lys
405    410    415
Ser Tyr Lys Pro Glu Ile Gln Asn Lys Leu Leu Ile Ile Lys Lys Lys

```

	420		425		430										
Ala	Lys	His	Lys	Lys	His	Lys	Ser	Gly	Lys	Lys	Ser	Val	Ser	Lys	Lys
	435		440		445										
Ala	Ile	Thr	Lys	Lys	Arg	Lys	Thr	Val	Ile	Lys	Ser	Pro	Thr	Val	Pro
	450		455		460										
Glu	Phe	Gln	Leu	Ile	Cys	Thr	Asn	Leu	Asp	Glu	Leu	Arg	Glu	Leu	Ile
	465		470		475										480
Thr	Lys	Ile	Glu	Asn	Glu	Leu	Lys	Asp	Leu	Glu	Lys	Lys			
			485						490						

<210> 2657

<211> 972

<212> DNA

<213> Homo sapiens

<400> 2657

```

nnctcgagct ctccccgccc accgtctggt ttatatctgt ttataaatgg ggaggcctcc
60
aggggggtcag agaccacagc ccagtagcct gggacaagcc gccaggtccc tctggtctct
120
gtcctgttgt ctaagggccca aggggcagta gcccctctcc cagggggcctt gagcacagag
180
gcgtcagatc agagttgccca tcttcaactt gatatgcccc ccacatccca gcagctctgt
240
gggccccaggc tactggcatc cacatgactc ccaggggcctg agtccacact gectgaggac
300
aggagcctca aaactgaaa gcacgtgctt cggaccagcc atccgtgcct gaccaatgtcc
360
tatggaaaaca cccacacgtg tgcagatcgc tgcaatgaaa ggggtcgtca tgggggtggg
420
taattccagc tgggaccgccc taggagcgcc atgcagctgt gggaacaagg ttgctgtcca
480
cacagacatg aagggtattcc ccgtggaatg aggttagaaa aggaagggca agagtggacg
540
tataaatgac ccatgctgtg gtgaaaactg ccatgagaga gagacggagg aagggggaga
600
aagtggggaga cagagaccaa catctgcact gcctgtgcct gccacactct cccctcgggg
660
ccagagggtg gcctctgggg aggggctggc gagaggggat gccaggcctg ggctgcagca
720
gacttgggtg gtcattggag atccatgcca tcaacggcag gctgggggtg cctccccggg
780
ccagaccaa gcatgcatgg ttggtgatgt ggaacttacg cagagcgtgg cggctgggca
840
ggcggctgtg caggggctgg gcattggatat acagggctcg gtagaactcc tggcagtcct
900
gtcccccgct ccgtgcagg tggctcagga ggtcacagag ccgcacacgc aagtagtcct
960
tgggggttccg ga
972

```

<210> 2658

<211> 76

<212> PRT

<213> Homo sapiens

<400> 2658

```

Glu Arg Asp Gly Gly Arg Gly Arg Lys Trp Glu Thr Glu Thr Asn Ile
 1             5             10             15
Cys Thr Ala Cys Ala Cys His Thr Leu Pro Ser Gly Pro Glu Gly Gly
          20             25             30
Leu Trp Gly Gly Ala Gly Glu Arg Gly Cys Gln Ala Trp Ala Ala Ala
          35             40             45
Asp Leu Gly Gly His Gly Gly Ser Met Pro Ser Thr Ala Gly Trp Gly
          50             55             60
Ala Leu Pro Gly Pro Ala Pro Ser Met His Gly Trp
65             70             75

```

<210> 2659

<211> 691

<212> DNA

<213> Homo sapiens

<400> 2659

```

actagtgaag gaaacggaag caagatttcc agatgtagca aatgggttta ttacggaaat
60
aattcatatt aagaattatt atgactctgaa tgtgagctg aagaggaaca gaaaagaaag
120
aatggagaga acaccttcaa acgcattgga ccccgctgg agaagcctgt ggagaagggtg
180
cagaggggtg aggcctctcc gagggccgtt ccgcagaacc tgcacagacc acagatgccca
240
ccctatgctt tcgcgcaccc acccttcccc ctgcctcccg tgcggcctgt gttcaacaac
300
ttcccaactc acatggggcc tatcccagcc ccgtacgtgc cccctctgcc caacgtgcgg
360
gtcaactatg acttcggtcc catccacatg cccctggagc acaacctgcc catgcacttt
420
ggccccagc cgcggtcatc cttctgatgg ccccgaaacc ccattgagca gcacaaagcc
480
cgtttggggg aggagtgtgg atggagaacc ctcccccaag gctggtgtct gtaccattgc
540
atcctaagtc agcttgaagg gtaggctggg tttttccca ccccttctct agaagggtcta
600
ctgctcctgg aagagtggac ggtaccataa taaagacgtc ccaaatggtg aaaaaaaaaa
660
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a
691

```

<210> 2660

<211> 120

<212> PRT

<213> Homo sapiens

<400> 2660

```

Ser Glu Cys Glu Ala Glu Glu Glu Gln Lys Arg Lys Asn Gly Glu Asn
 1             5             10             15
Thr Phe Lys Arg Ile Gly Pro Pro Leu Glu Lys Pro Val Glu Lys Val

```

	20		25		30
Gln Arg Val	Glu Ala Leu Pro Arg	Pro Val Pro	Gln Asn Leu Pro	Gln	
35		40	45		
Pro Gln Met	Pro Pro Tyr Ala Phe	Ala His Pro	Pro Phe Pro	Leu Pro	
50		55	60		
Pro Val Arg	Pro Val Phe Asn Asn	Phe Pro Leu	Asn Met Gly	Pro Ile	
65		70	75	80	
Pro Ala Pro	Tyr Val Pro Pro Leu	Pro Asn Val	Arg Val Asn	Tyr Asp	
	85	90	95		
Phe Gly Pro	Ile His Met Pro Leu	Glu His Asn	Leu Pro Met	His Phe	
	100	105	110		
Gly Pro Gln	Pro Arg His Arg Phe				
115		120			

<210> 2661

<211> 1395

<212> DNA

<213> Homo sapiens

<400> 2661

ctagttgatc agcaagtttg gaaaatagaa gatgtcttca cattacaagt tgtgatgaag
 60
 tgtattggaa aagatgcacc gattgctctt aagaggaaa tggagatgaa agccttgagg
 120
 gaattagaca gattttctgt ttggaatagc caacacatgt ttgaagtact agctgccatg
 180
 aatcaccgat ctcttatact cctggatgaa tgcagtaagg tggtcctaga taatatccat
 240
 ggggtgctct taagaataat gatcaacata ttgcagtcct gcaaagacct ccagtaccat
 300
 aatttggatc tcttcaaggg acttgcatat tatgtggctg caactttcga catctggaag
 360
 ttcagaaaag ttctttttat cctcatttta ttgaaaacc ttggctttcg acctgttggg
 420
 ttaatggacc tgtttatgaa gagaatagta gaggatcctg aatccctaaa catgaaaaac
 480
 attctatcta ttcttcatac ttactcttct ctcaatcatg tctacaaatg ccagaacaaa
 540
 gaacagttcg ttgaagttat ggctagtgcg ctgactgggt atcttcacac tatttcttct
 600
 gaaaacttat tggatgcagt atattcattt tgcttgatga attactttcc cctggctcct
 660
 tttaatcagc ttctgcaaaa agacatcgc agtgagctgc tgacatcaga tgacatgaag
 720
 aatgcttaca agctgcatac ttggatact tgtctaaaac ttgatgatac tgtctatctg
 780
 agggacatag ccttgctcact cccacagctg ccgaggaggc tgccatcgtc acatacaaat
 840
 gcaaagggtg cagagggtgct gaggcagcct ctgggagggt aaggacacatt ctcaaggat
 900
 gtgcacttgc cacacaatta tcatattgat ttgaaatca gaatggacac taacaggaat
 960
 caagtgtac cactttctga tgtggataga acctctgcta cagatattca aagatagact
 1020

gtgctatgtg ttccagatc tgcttattgt ttgggttcaa gccacccag aggattcctt
 1080
 gctatgaaaa tgcggcattt gaatgcaatg ggttttcatg tgatcttggt caataactgg
 1140
 gagatggaca aactagagat ggaagatgca gtcacatttt tgaagactaa aatctattca
 1200
 gtagaagctc ttctgtttgc tgcgtgtaaat gtgcaaagca cacaataaag tgaaaatcaa
 1260
 ccttttcata ttaggagaca tgcatttgta aaaattaata aagatgacaa gtcagttgtc
 1320
 aatgggaattg agctatctgc taagacaaaa aatgttacct cagttcacta ttaaaattaa
 1380
 ttttaggagt ggaaa
 1395

<210> 2662

<211> 415

<212> PRT

<213> Homo sapiens

<400> 2662

Leu Val Asp Gln Gln Val Trp Lys Ile Glu Asp Val Phe Thr Leu Gln
 1 5 10 15
 Val Val Met Lys Cys Ile Gly Lys Asp Ala Pro Ile Ala Leu Lys Arg
 20 25 30
 Lys Leu Glu Met Lys Ala Leu Arg Glu Leu Asp Arg Phe Ser Val Leu
 35 40 45
 Asn Ser Gln His Met Phe Glu Val Leu Ala Ala Met Asn His Arg Ser
 50 55 60
 Leu Ile Leu Leu Asp Glu Cys Ser Lys Val Val Leu Asp Asn Ile His
 65 70 75 80
 Gly Cys Pro Leu Arg Ile Met Ile Asn Ile Leu Gln Ser Cys Lys Asp
 85 90 95
 Leu Gln Tyr His Asn Leu Asp Leu Phe Lys Gly Leu Ala Asp Tyr Val
 100 105 110
 Ala Ala Thr Phe Asp Ile Trp Lys Phe Arg Lys Val Leu Phe Ile Leu
 115 120 125
 Ile Leu Phe Glu Asn Leu Gly Phe Arg Pro Val Gly Leu Met Asp Leu
 130 135 140
 Phe Met Lys Arg Ile Val Glu Asp Pro Glu Ser Leu Asn Met Lys Asn
 145 150 155 160
 Ile Leu Ser Ile Leu His Thr Tyr Ser Ser Leu Asn His Val Tyr Lys
 165 170 175
 Cys Gln Asn Lys Glu Gln Phe Val Glu Val Met Ala Ser Ala Leu Thr
 180 185 190
 Gly Tyr Leu His Thr Ile Ser Ser Glu Asn Leu Leu Asp Ala Val Tyr
 195 200 205
 Ser Phe Cys Leu Met Asn Tyr Phe Pro Leu Ala Pro Phe Asn Gln Leu
 210 215 220
 Leu Gln Lys Asp Ile Ile Ser Glu Leu Leu Thr Ser Asp Asp Met Lys
 225 230 235 240
 Asn Ala Tyr Lys Leu His Thr Leu Asp Thr Cys Leu Lys Leu Asp Asp
 245 250 255
 Thr Val Tyr Leu Arg Asp Ile Ala Leu Ser Leu Pro Gln Leu Pro Arg

	260		265		270
Glu Leu Pro Ser Ser His Thr Asn Ala Lys Val Ala Glu Val Leu Ser					
	275		280		285
Ser Leu Leu Gly Gly Glu Gly His Phe Ser Lys Asp Val His Leu Pro					
	290		295		300
His Asn Tyr His Ile Asp Phe Glu Ile Arg Met Asp Thr Asn Arg Asn					
	305		310		315
Gln Val Leu Pro Leu Ser Asp Val Asp Thr Thr Ser Ala Thr Asp Ile					
	320		325		330
Gln Arg Val Ala Val Leu Cys Val Ser Arg Ser Ala Tyr Cys Leu Gly					
	335		340		345
Ser Ser His Pro Arg Gly Phe Leu Ala Met Lys Met Arg His Leu Asn					
	350		355		360
Ala Met Gly Phe His Val Ile Leu Val Asn Asn Trp Glu Met Asp Lys					
	365		370		375
Leu Glu Met Glu Asp Ala Val Thr Phe Leu Lys Thr Lys Ile Tyr Ser					
	380		385		390
Val Glu Ala Leu Pro Val Ala Ala Val Asn Val Gln Ser Thr Gln					
	400		405		410
					415

<210> 2663

<211> 1024

<212> DNA

<213> Homo sapiens

<400> 2663

```

nngtggtgc agcggggccc gcgtggtgcc tctgaggcg gccccggat gaagagatct
60
gggaacccgg gagccgaggt aacgaacagc tcggtggcag ggcctgactg ctgcggaggc
120
ctcggcaata ttgattttag acaggcagac ttctgcgtta tgacccggct gctgggctac
180
gtggaccccc tggatcccag ctttgtggct gccgtcatca ccatcacctt caatccgctc
240
tactggaatg tgggtgcacg atgggaacac aagaccgcga agctgagcag ggccttcgga
300
tccccctacc tggcctgcta ctctctaagc gtcaccatcc tgctctctgaa ctctctcgcc
360
tcgactgctg tcacgcaggc catgctgagc cagcccagga tggagagcct ggacaccccc
420
gcggcctaca gcctgggcct cgcgctcctg ggaactggcg tcgtgctcgt gctctccagc
480
ttctttgcac tggggttcgc tggaaacttc ctagggtgatt acttcgggat cctcaaggag
540
gcgagagtga ccgtgttccc cttoaacatc ctggacaacc ccatgtactg gggaagcaca
600
gccaaactacc tgggctgggc catcatgcac gccagcccca cgggcctgct cctgacgggtg
660
ctgggtggccc tcacctacat aatggctctc ctatacgaag agcccttcac cgctgagatc
720
taccgcgaga aagcctccgg gtccacaaag aggagctgat tgagctgcaa cagctttgct
780
gaaggcctgg ccagcctccc tcgtgccccca agtggcaggc cctgcgcagg gcgagaatgg
840

```


tgctctgtgc tcagggtctc ccccggtgtg ggtgtcccca gtgccttgga acctgtgtcc
 900
 ttgggggaccc tggacgtgcc gacatatggc cattgagctc caacccacac attcccattc
 960
 accaataaag gcacctgtac cccaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 1020
 aaaa
 1024

<210> 2664
 <211> 199
 <212> PRT
 <213> Homo sapiens

<400> 2664
 Met Thr Arg Leu Leu Gly Tyr Val Asp Pro Leu Asp Pro Ser Phe Val
 1 5 10 15
 Ala Ala Val Ile Thr Phe Asn Pro Leu Tyr Trp Asn Val Val
 20 25 30
 Ala Arg Trp Glu His Lys Thr Arg Lys Leu Ser Arg Ala Phe Gly Ser
 35 40 45
 Pro Tyr Leu Ala Cys Tyr Ser Leu Ser Val Thr Ile Leu Leu Asn
 50 55 60
 Phe Leu Arg Ser His Cys Phe Thr Gln Ala Met Leu Ser Gln Pro Arg
 65 70 75 80
 Met Glu Ser Leu Asp Thr Pro Ala Ala Tyr Ser Leu Gly Leu Ala Leu
 85 90 95
 Leu Gly Leu Gly Val Val Leu Val Leu Ser Ser Phe Phe Ala Leu Gly
 100 105 110
 Phe Ala Gly Thr Phe Leu Gly Asp Tyr Phe Gly Ile Leu Lys Glu Ala
 115 120 125
 Arg Val Thr Val Phe Pro Phe Asn Ile Leu Asp Asn Pro Met Tyr Trp
 130 135 140
 Gly Ser Thr Ala Asn Tyr Leu Gly Trp Ala Ile Met His Ala Ser Pro
 145 150 155 160
 Thr Gly Leu Leu Leu Thr Val Leu Val Ala Leu Thr Tyr Ile Met Ala
 165 170 175
 Leu Leu Tyr Glu Glu Pro Phe Thr Ala Glu Ile Tyr Arg Gln Lys Ala
 180 185 190
 Ser Gly Ser His Lys Arg Ser
 195

<210> 2665
 <211> 720
 <212> DNA
 <213> Homo sapiens

<400> 2665
 nncgcggggc atgtctgtgt gtatgtgtgt gtgtgcacgc gcgtgcatgc atgcatgctg
 60
 cgaggggagg aagggaagcg tggaaggggg gagagagttg ttgtctagcc tctgagagca
 120
 gcgccaatgc gaagcggtgc agtcgcttga ctcacctgag gctctccaag gataccttca
 180

atgcctgcac tgtaaggagg ctgcttttcc cgggtgctgg cgagaacgga agccttcctt
 240
 tgacgttttt ctaaacatgg gatgcagtct gtgcagcctg cagaagcaag aggagcagta
 300
 caaattactt atgaagtttg tcagggtcaac ggcagagact tatccagagc aactcatgac
 360
 caggctgtgg aagcttttcaa gacagccaag gagcccatag tgggtgcaggt gttgagaaga
 420
 acaccaagga ccaaaatgtt cagcctccca tcagagtctc agctgggtgga caccggaacc
 480
 caaacgcaca tcacctttga acatatcatg gccctcacta agatgtcttc tcccagccca
 540
 cccgtgctgg atccctatct cttgccagag gagcatcctc cagcccatga atactacgat
 600
 ccaaattgact acattggaga catccatcag gagatggaca gggaggagct ggagctggag
 660
 gaagtggacc tctacagaat gaacagccag gacaagctgg gcctcactgt gtgctaccgg
 720

<210> 2666

<211> 153

<212> PRT

<213> Homo sapiens

<400> 2666

Met Gln Ser Val Gln Pro Ala Glu Ala Arg Gly Ala Val Gln Ile Thr
 1 5 10 15
 Tyr Glu Val Cys Gln Val Asn Gly Arg Asp Leu Ser Arg Ala Thr His
 20 25 30
 Asp Gln Ala Val Glu Ala Phe Lys Thr Ala Lys Glu Pro Ile Val Val
 35 40 45
 Gln Val Leu Arg Arg Thr Pro Arg Thr Lys Met Phe Thr Pro Pro Ser
 50 55 60
 Glu Ser Gln Leu Val Asp Thr Gly Thr Gln Thr Asp Ile Thr Phe Glu
 65 70 75 80
 His Ile Met Ala Leu Thr Lys Met Ser Ser Pro Ser Pro Val Leu
 85 90 95
 Asp Pro Tyr Leu Leu Pro Glu Glu His Pro Ser Ala His Glu Tyr Tyr
 100 105 110
 Asp Pro Asn Asp Tyr Ile Gly Asp Ile His Gln Glu Met Asp Arg Glu
 115 120 125
 Glu Leu Glu Leu Glu Glu Val Asp Leu Tyr Arg Met Asn Ser Gln Asp
 130 135 140
 Lys Leu Gly Leu Thr Val Cys Tyr Arg
 145 150

<210> 2667

<211> 289

<212> DNA

<213> Homo sapiens

<400> 2667

nccatgggga atgggatgaa caagatcctg cccggcctgt acatcggaac cttcaaagat
 60

gccagagacg cggaacaatt gagcaagaac aaggggaacc ctttttctgt ttgtccccga
 120
 tgggtgccag gectatgttg gaggacaaga catttcaaag aaagtattaa attcattcac
 180
 gagtgcggcg tcgcggggga gagctgcctt gtacactgcc tggccggggg ctccaggagc
 240
 gtgacactgg tgatgcgata catcatgacc gtactgact ttggctggg
 289

<210> 2668

<211> 96

<212> PRT

<213> Homo sapiens

<400> 2668

Xaa Met Gly Asn Gly Met Asn Lys Ile Leu Pro Gly Leu Tyr Ile Gly
 1 5 10 15
 Asn Phe Lys Asp Ala Arg Asp Ala Glu Gln Leu Ser Lys Asn Lys Gly
 20 25 30
 Asn Pro Phe Ser Val Cys Pro Arg Trp Val Pro Gly Leu Cys Trp Arg
 35 40 45
 Thr Arg His Phe Lys Glu Ser Ile Lys Phe Ile His Glu Cys Arg Leu
 50 55 60
 Arg Gly Glu Ser Cys Leu Val His Cys Leu Ala Gly Val Ser Arg Ser
 65 70 75 80
 Val Thr Leu Val Ile Ala Tyr Ile Met Thr Val Thr Asp Phe Gly Trp
 85 90 95

<210> 2669

<211> 4285

<212> DNA

<213> Homo sapiens

<400> 2669

gcgcgccggg aaaaatggcg aaatgggggt aggcggcgct ggacctgaag agatggggcg
 60
 cgcaggtggg gcggtttgtca gagccccctg acgtggggcg cgggctttta tcggcgattt
 120
 gatctggcga cctcggggcg gcgcctaaga ggtcagactg cggagcctgc gggctgccag
 180
 cggccccccc gagagccgga ggcaatggat gaacagagcg tggagagcat tgctgaggtt
 240
 ttccgatgtt tcattttgtat ggagaaattg cgggatgcac gcctgtgtcc tcattgtccc
 300
 aaactgtgtt gtttcagctg tattaggcgc tggctgacag agcagagagc tcaatgtcct
 360
 cattgcctg ctccactcca gctacgagaa ctagttaatt gtcgttgggc agaagaagta
 420
 acacaacagc ttgatactct tcaactctgc agtctcacca aacatgaaga aaatgaaaag
 480
 gacaaaatgtg aaaatcacca tgaaaaactt agtgtatttt gctggacttg taagaagtgt
 540
 atctgccatc agtgtgcact ttggggaggga atgcattggc gacataacct taaacctttg
 600

gcagaaattt atgagcaaca cgtcactaaa gtgaatgaag aggtagccaa acttcgtcgg
660
cgctctcatgg aactgatcag cttagtccaa gaagtggaaa ggaatgtaga agctgtgaaga
720
aatgcaaaag atgagcgtgt tcgggaaatt aggaatgcag tggagatgat gattgcacgg
780
ttagacacac agctgaagaa taagcttata aactgatgg gtcagaagac atctctaacc
840
caagaacacag agcttttgga atccttactt caggagggtgg agcaccagtt gcggtcttgt
900
agtaagagtg agttgatatc taagagctca gagatcctta tgatgtttca gcaagttcat
960
cggaagccca tggcatcttt tgttaccact cctgttcac cagactttac cagtgaatta
1020
gtgccatctt acgattcagc tacttttgtt tttagagaatt tcagcacttt gcgtcagaga
1080
gcagatcctg tttcacgtcc acctcttcaa gtttcaggac tttgtggag gttaaaagtt
1140
taccagatg gaaatggagt tgtgcgaggt tactacttat ctgtgtttct ggagctctca
1200
gctggcttgc ctgaaacttc taaatatgaa tatcgtgtag agatggttca ccagtcctgt
1260
aatgatccta caaaaaatat cattcagaaa tttgatctg actttgaagt tggagaatgc
1320
tggggctata atagattttt ccgtttggac ttactcgaa atgaaggata cttgaatcca
1380
caaatgata cagtgatctt aaggtttcag gtacgttcac caactttctt tcaaaaatcc
1440
cgggaccagc attggtacat tactcagttg gaagctgcac agactagtta tatccaacaa
1500
ataaacaacc ttaaagagag acttactatt gagctgtctc gaactcagaa gtcaagagat
1560
ttgtcaccac cagataacca tcttagcccc caaatgatg atgctctgga gacacgagct
1620
aagaagtctg catgctctga catgctcttc gaaggtgggt ctactacagc ttctgtgaaga
1680
gaggccaag aggatgaaga agatgaggag aagattcaga atgaagatta tcatcacgag
1740
ctttcagatg gagatctgga tctggatctt gtttatgagg atgaagtaaa tcagctcgat
1800
ggcagcagtt cctctgctag ttccacagca acaagtaata cagaagaaaa tgatattgat
1860
gaagaaacta tgtctggaga aaatgatgtg gaatataaca acatggaatt agaagagggg
1920
gaatcatgg aagatgcagc tgcctgcagga cccgcaggta gtaccatgg ttatgtgggt
1980
tccagtagta gaatatcaag aagaacacat ttatgtctcg ctgctaccag tagtttacta
2040
gacattgatc cattaatttt aatacatttg ttggacctta aggaccggag cagtatagaa
2100
aatttgtggg gcttacagcc tcgcccacct gcttcacttc tcgagccac agcatcatat
2160
tctcgaagaag ataaagacca aagggaagcaa caggcaatgt ggcgagtgc cctctgattta
2220

aagatgctaa aaagactcaa aactcaaatg gccggaggtc gatgtatgaa aactgatgta
2280
aagaatacac ttccagaaat aaaaagcagc agtgctgctt ctggagacat gcagacaagc
2340
cttttttctg ctgaccaggc agctctggct gcattgtggaa ctgaaaactc tggcagattg
2400
caggatttgg gaatggaact cctggcaag tcattcagttg ccaattgtta catagaaaac
2460
tcacaaaata agaagagtaa ttcccccag ccagctcgat ccagtgtagc aggtagtcta
2520
tcacttcgaa gagcagtgga ccctggagaa aatagtcgtt caaagggaga ctgtcagact
2580
ctgtctgaag gctccccagg aagctctcag tctgggagca ggcacagttc tccccgagcc
2640
ttgatacatg gcagatctcg tgatattctg cccaaaactg aagaccggca gtgtaaagct
2700
ttggattcag atgctgttgt ggttgcaagt ttctgtggct tgccctgcgt tgagaaaagg
2760
aggaaaatgg tcaccttggg ggctaattgct aaaggaggct atctggaagg actgcagatg
2820
actgatttgg aaaataattc tgaactgga gagttacagc ctgtactacc tgaaggagct
2880
tcagctgccc ctgaagaagg aatgagtagc gacagtgcga ttgaatgtga cactgagaat
2940
gaggagcagg aagagcatac cagtgtgggc gggtttcaac actccttcat ggtcatgaca
3000
cagcccccg atgaagatac acattccagt ttctctgatg gtgaacaaat aggccctgaa
3060
gatctcagct tcaatacaga tgaataatgt ggaaggtaat tgccaaatca agagaactga
3120
cttgcaagct accttgaccc tgaattttgc tgtagttggt gctcaaattt gtcacagtc
3180
agataatcag atttgggtctt atttcttcat tatctcgacc tgaatatgta atttggaaaac
3240
tgttgggaagg tggcacagtt tagtctaaga cagcagtagt acatgggaaa aacagtagtg
3300
gaagagttct ttgtaatgta aggaataaac aatgtagttc tctattaatt tagcaaat
3360
gtacattcac aaaaggcagt ttgtctacta cagcagaagg ctggtttaact gccagaaaat
3420
gtacctccag gccctgcagt ccgtcagtaa cccgcccgcc attggtgctc tactgtcttt
3480
ggctagagct tagttgtgtt taaaataatca tctttatatt tggggtttta attcagttc
3540
cattagtgcc tgtagattag tgaacagaaa attgctttgg aagagattct gccctgtaga
3600
cactatgtga ataactgaag taacactaga ctgaatctcc tttttggagt atgtatcttc
3660
tctcacttgt tcaagtacag gcacactgtt caaccgcagt gtatctttct gttgtgtgac
3720
ttctacaaat gttattttta atgaaaattaa gttaacatgg attcattacg ttctggccc
3780
tgtagacacg tgtaagatta tttaaaattc ttctattttt ttctgcctct tactatacga
3840

ctgtagtgc acaaatattt taaagcccc tttttctctt tattttcatt agttgtacat
 3900
 tgatttcagt gtcaacacat ttaaagattc attcatgttg cacagtggct tacatgaacg
 3960
 tgaatactgtg atataagggtt ttctttcata ctcataatta gcccaaaaca gttgccaaac
 4020
 ttgtccattg tgctcctgca tttgtgtttg agctgctata tatttggga aattacactg
 4080
 aaagtgtgact aagagactat tgaaaaagca tgaataatta aatatacatg tgagagacat
 4140
 ctcatctgct gtattttact tagtgaatat tgttcactct tccgtgtctg atgtcttgct
 4200
 gaatgctgtg actcatagtt tactttttgtt caaaatagtt tgcacttttt gttaataaaa
 4260
 tcaacttgag aaaaaaaaaa aaaaa
 4285

<210> 2670

<211> 979

<212> PRT

<213> Homo sapiens

<400> 2670

Ala	Glu	Pro	Ala	Gly	Arg	Gln	Arg	Pro	Arg	Arg	Glu	Pro	Glu	Ala	Met
1				5					10					15	
Asp	Glu	Gln	Ser	Val	Glu	Ser	Ile	Ala	Glu	Val	Phe	Arg	Cys	Phe	Ile
			20					25					30		
Cys	Met	Glu	Lys	Leu	Arg	Asp	Ala	Arg	Leu	Cys	Pro	His	Cys	Ser	Lys
		35					40					45			
Leu	Cys	Cys	Phe	Ser	Cys	Ile	Arg	Arg	Trp	Leu	Thr	Glu	Gln	Arg	Ala
		50				55					60				
Gln	Cys	Pro	His	Cys	Arg	Ala	Pro	Leu	Gln	Leu	Arg	Glu	Leu	Val	Asn
65				70					75					80	
Cys	Arg	Trp	Ala	Glu	Glu	Val	Thr	Gln	Gln	Leu	Asp	Thr	Leu	Gln	Leu
			85					90					95		
Cys	Ser	Leu	Thr	Lys	His	Glu	Glu	Asn	Glu	Lys	Asp	Lys	Cys	Glu	Asn
			100					105					110		
His	His	Glu	Lys	Leu	Ser	Val	Phe	Cys	Trp	Thr	Cys	Lys	Lys	Cys	Ile
		115				120					125				
Cys	His	Gln	Cys	Ala	Leu	Trp	Gly	Gly	Met	His	Gly	Gly	His	Thr	Phe
		130			135				140						
Lys	Pro	Leu	Ala	Glu	Ile	Tyr	Glu	Gln	His	Val	Thr	Lys	Val	Asn	Glu
145				150					155					160	
Glu	Val	Ala	Lys	Leu	Arg	Arg	Arg	Leu	Met	Glu	Leu	Ile	Ser	Leu	Val
			165					170					175		
Gln	Glu	Val	Glu	Arg	Asn	Val	Glu	Ala	Val	Arg	Asn	Ala	Lys	Asp	Glu
		180						185					190		
Arg	Val	Arg	Glu	Ile	Arg	Asn	Ala	Val	Glu	Met	Met	Ile	Ala	Arg	Leu
		195				200						205			
Asp	Thr	Gln	Leu	Lys	Asn	Lys	Leu	Ile	Thr	Leu	Met	Gly	Gln	Lys	Thr
	210				215						220				
Ser	Leu	Thr	Gln	Glu	Thr	Glu	Leu	Leu	Glu	Ser	Leu	Leu	Gln	Glu	Val
			225		230				235					240	
Glu	His	Gln	Leu	Arg	Ser	Cys	Ser	Lys	Ser	Glu	Leu	Ile	Ser	Lys	Ser

[illegible]

675	680	685
Met Leu Lys Arg Leu Lys Thr	Gln Met Ala Gly Val Arg Cys Met Lys	
690	695	700
Thr Asp Val Lys Asn Thr Leu Ser Glu Ile Lys Ser Ser Ser Ala Ala		
705	710	715
Ser Gly Asp Met Gln Thr Ser Leu Phe Ser Ala Asp Gln Ala Ala Leu		
725	730	735
Ala Ala Cys Gly Thr Glu Asn Ser Gly Arg Leu Gln Asp Leu Gly Met		
740	745	750
Glu Leu Leu Ala Lys Ser Ser Val Ala Asn Cys Tyr Ile Arg Asn Ser		
755	760	765
Thr Asn Lys Lys Ser Asn Ser Pro Lys Pro Ala Arg Ser Ser Val Ala		
770	775	780
Gly Ser Leu Ser Leu Arg Arg Ala Val Asp Pro Gly Glu Asn Ser Arg		
785	790	795
Ser Lys Gly Asp Cys Gln Thr Leu Ser Glu Gly Ser Pro Gly Ser Ser		
805	810	815
Gln Ser Gly Ser Arg His Ser Ser Pro Arg Ala Leu Ile His Gly Ser		
820	825	830
Ile Gly Asp Ile Leu Pro Lys Thr Glu Asp Arg Gln Cys Lys Ala Leu		
835	840	845
Asp Ser Asp Ala Val Val Val Ala Val Phe Ser Gly Leu Pro Ala Val		
850	855	860
Glu Lys Arg Arg Lys Met Val Thr Leu Gly Ala Asn Ala Lys Gly Gly		
865	870	875
His Leu Glu Gly Leu Gln Met Thr Asp Leu Glu Asn Asn Ser Glu Thr		
885	890	895
Gly Glu Leu Gln Pro Val Leu Pro Glu Gly Ala Ser Ala Ala Pro Glu		
900	905	910
Glu Gly Met Ser Ser Asp Ser Asp Ile Glu Cys Asp Thr Glu Asn Glu		
915	920	925
Glu Gln Glu Glu His Thr Ser Val Gly Gly Phe His Asp Ser Phe Met		
930	935	940
Val Met Thr Gln Pro Pro Asp Glu Asp Thr His Ser Ser Phe Pro Asp		
945	950	955
Gly Glu Gln Ile Gly Pro Glu Asp Leu Ser Phe Asn Thr Asp Glu Asn		
965	970	975
Ser Gly Arg		

<210> 2671

<211> 814

<212> DNA

<213> Homo sapiens

<400> 2671

```

nnacgcgtgc gcagaagggc ggaagggag agagacacg cggggccca gcgccggccg
60
gcctgacccc ctacgtctgt ctctatgggc gcgcgccgac agcctcgccg accggccccc
120
gggccccggc tgaggggtgc gcgcgagcac ccggggaagg tgggggggag gcggtgggcg
180
aaagattcgc gcgcagtcag ccgtcatggg aggggggaact gtggggcggt cgccatcttg
240

```


tctccctctc cttacctgcg tcttcggggg cgtgcgcacc accccccctc cgccttagga
 300
 ggggggaggg cccctctttg gccacgcctc tcggggcctt taaactcccc tggagactgc
 360
 ggctactgcc accgccttgc ctccactgcc tcttcgcgca gcacacagat gcggacgggtg
 420
 ggtgggaaaa agggcgacgc tactcccagc gaacgcgcgc tgcgcctccc gaggcctnca
 480
 ccaaaatggc cgcgcgcgtc tcggcgccca ccaccaccac taccaccacc actcgcctcg
 540
 aatcgctatc gccgcgcggg cccgtcttct cgcgagagac aatcaccagc taagctgcag
 600
 caagtttagc gtggaacctg ggcctcccg tccccatggc agccacttc tgtagcgctg
 660
 cttcgtttta cgcgaggatg gtttctctgat agcttttcaa cacctttgcc atctcttcgc
 720
 aaactttcta gattaagaat ccctttgaga atctgatacc tttacccagc aatagaacaa
 780
 taaataacag ctactctcta ctgacactaa aaaa
 814

<210> 2672

<211> 223

<212> PRT

<213> Homo sapiens

<400> 2672

Met Gly Ala Arg Gln Pro Arg Ala Pro Ala Pro Gly Pro Arg Leu
 1 5 10 15
 Arg Val Arg Ala Gln His Pro Gly Lys Val Gly Gly Arg Arg Trp Arg
 20 25 30
 Lys Asp Ser Arg Ala Val Ser Arg His Gly Arg Gly Asn Cys Gly Ala
 35 40 45
 Phe Ala Ile Leu Ser Pro Ser Pro Tyr Leu Arg Pro Arg Gly Arg Ala
 50 55 60
 His His Pro Pro Ser Arg Leu Gly Gly Gly Arg Ala Pro Ser Trp Pro
 65 70 75 80
 Pro Pro Ser Arg Pro Leu Asn Ser Pro Gly Asp Cys Gly Tyr Cys His
 85 90 95
 Arg Leu Ala Ser Thr Ala Ser Ser Arg Ser Thr Gln Met Arg Thr Val
 100 105 110
 Gly Gly Lys Lys Gly Asp Ala Thr Pro Ser Glu Pro Pro Leu Pro Leu
 115 120 125
 Pro Arg Pro Xaa Pro Lys Trp Pro Pro Pro Ser Arg Pro Pro Pro Pro
 130 135 140
 Pro Leu Pro Pro Pro Leu Ala Arg Asn Arg Tyr Arg Arg Arg Gly Pro
 145 150 155 160
 Ser Ser Arg Glu Arg Gln Ser Pro Ser Lys Leu Gln Gln Val Ser Ser
 165 170 175
 Gly Thr Trp Ala Ser Arg Phe Pro Trp Gln Pro Thr Ser Val Ala Leu
 180 185 190
 Leu Arg Phe Thr Arg Gly Trp Phe Pro Asp Ser Phe Gln Thr Pro Leu
 195 200 205
 Pro Ser Leu Arg Lys Leu Ser Arg Leu Arg Ile Pro Leu Arg Ile

210	215	220
<210> 2673		
<211> 5035		
<212> DNA		
<213> Homo sapiens		
<400> 2673		
cggggacggg	ggccccggtgg	gccccgaggag gaaagatact ggggagtgagg agccgcgggg
60		
ttcagagcga	tgattccccc	acaggaggca tccgctcgac gccgggagat tgaggacaag
120		
ctgaagcagg	aggaggagac	tctgtccttc atccgagaca gcttgagaa gagcgaccag
180		
ctactaaga	acatggtgtc	tatcttatca tctcttgaga gccgccttat gaagctggag
240		
aactccatca	tccctgtgca	caagcagacg gagaatctgc agcggctgca ggagaatgtt
300		
gagaagacgc	tgctctgcct	ggaccatgtc atcagctact accatgtggc cagtgcact
360		
gagaagatca	tcagagaggg	ccccacaggt aggcctggaag agtacctggg aagcatggcc
420		
aagattcaga	aggcagtgga	gtatttccag gacaacagcc cagacagccc ggaactcaac
480		
aaagtgaac	tgctctttga	gcgcgggaag gaggccctgc agtccgaatt tcgcagcctg
540		
atgacgcggc	acagtaaggt	cgtctcgccc gtgctcatct tggatctgat cagtgttgac
600		
gatgatctgg	aggcccagga	ggacgtgacc ctgggacacc tgcgcgagag cgtgctccag
660		
gatgtcattc	gcctctcccc	ctggctgggt gaatatggcc gcaaccaaga tttcatgaac
720		
gtctactacc	agatacgtc	cagccagctg gaccgctcca tcaaaggact gaaggagcat
780		
ttccataaga	gcagttcttc	ctctgggggt cctactcccc ctgctatccc caacaagagg
840		
aaagacacac	ctaccaagaa	gccagtcagg cgccaggga cgaatccgtaa ggctcagaac
900		
ctctgaaac	agtatcccca	gcctggtcta gatgggaaaa aggggggctc taacctcatt
960		
cctctggaag	ggagagatga	catgctggac gtggagaccg atgcctacat ccaactgcgtc
1020		
agtgccttcg	tcaagctggc	gcagagcgag taccagctgc tggccgacat catcccgag
1080		
caccaccaga	agaagacctt	cgactccctg atacaggatg ccctggatgg gctgatgctt
1140		
gaaggggaga	acatcgtgtc	tgctgcccgg aaggccattg tgcgacacga cttctccacg
1200		
gtgctccaccg	tcttccccat	cctgcgacac ctcaagcaga ccaagcctga gtttgaccag
1260		
gtgctccagg	gcacgggtgc	cagcacaaa gacaagctgc ctggcctcat cacatccatg
1320		
gagaccatcg	gtgccaaagc	gctggaggac ttcgcagaca acatcaagaa tgacccggag
1380		

aaggagtaca acatgccgaa ggacggcacc gtacacgagc tcaccagcaa tgccatcctc
1440
ttcctgcagc agcttttggg cttccaggag acggcaggcg ccatgctggc ctcccaagag
1500
accagctctt cggccaccag ctacagctct gagttcagca agcggctgct aagcacctat
1560
atctgtaaag tgctgggcaa cctgcagttg aacttgctga gcaagtccaa ggtgtacgag
1620
gacccagctc tgagcgccat cttcctgcac aacaactaca attacatcct caagtccctg
1680
gagaagtctg aactgatcca gctgggtggca gtgacacaga agactgctga gcgctcctac
1740
cgggagcaca ttgagcagca gatccagacc taccagcgca gctgggtaaa ggtgactgat
1800
tacatcgagc agaagaatct acctgtgttc cagccgggag tcaagctccg ggacaaggag
1860
cggcagatta tcaaggagcg ttttaaggcg tccaatgatg gcctcgaaga actgtgcaaa
1920
atccagaagg cctgggctat tccagacaca gagcagaggg acaggattcg ccaggcccag
1980
aagaccattg tcaaggagac ctacggggcc tttctacaga agtttgcgag cgtgcccttc
2040
accaagaacc cggagaagta catcaagtac ggggtgggag aggtgggcga catgatcgat
2100
cgccctttcg acacctctgc ctgagcctgc tgctagccct gcctgggttc accagactgg
2160
cgtgtcattg gacagataaa ccagtgttag cttgcctctg ggtcgggtga gcttgaagtc
2220
ctctgggaca gagacctgct tccacgcctc cgggagctgt gtccctgagc cccctagtcc
2280
tggtcctgct tttttcccca cagcccgctg tcccagccga accagcactc tcccggaaagc
2340
ctggggctcc tccacacctt ggcttttatg acctgatgg cttctgaaac aggaaaagag
2400
agaagggaaga cagaggcctg tgcccactgc tgctccatgt gtaccaagag cagcagggca
2460
gaagggccct ccctccagcc taggtcagag gtggggacag agaactcccc tacagcccag
2520
agatgtggca gggctcagag aagcagccag agctcctgga ggaaggcgag tcgggactga
2580
ccccctctct taaaacacat tcccgccgcg ccacaggcct gaggtctggg acctttccct
2640
ccaggagtc ccctagatgg ctggggggag caggctcact ggccattttc cctagagtcc
2700
agcacactgc agggagcggt cggaggagga gttccgcccc acctctaca gccttctcta
2760
ggccccctgc tctggccccc agcctcagtg cctcttgccc cagggccagg cagtctgtgt
2820
tgcaagaagg gcaattagcg tgctgcctg tgggtgggga gacagggaca atggggaaaa
2880
gttaaggagc aaaatggggg ttggaagcaa aaaatagggc cccacctatt taggacgaga
2940
ttgaagactg acccttgagg cacacttgca ctggagatgg gtttatttca cgtctgtgct
3000

tttgtgtgcta gcggaggagg agctcagggg ggcttaatcc agaggccctg tcatggcccg
3060
ccccacgcca tgggaaagca aacttcatec taagggtgtgc agcccaggcc ctgccccctt
3120
acaggtctagg cgcctgccca tgggggtgcag cctctccagg ggctgcgtca gacttgacag
3180
ctgcccacat ccagattcct gcaaagacga attgggtgca cagcacccca accacataca
3240
cgaggaaagaa gatgcggtca gcagtctcag gccagcttct ctgtgacccc ttactctctc
3300
tggaggggctc tgtggggaga gatacaggga aaggagctgt tcttcaagggt cccctcaaca
3360
tgagcgggaag agcgaacccc aggggtcatc agcctgtatc gcttccttct ttagattctc
3420
agctgatgaa aatttgggtc tggcccatct caggccatct tcagttgaag aaacacccctc
3480
ttaggctgtg caaggcatgg gttatcaggg gattgaggtc acctgggact tcagggaggc
3540
tcagcttgct ccctgcccc gacctgttct ttctaaggga ggaggacatg gtggagacca
3600
gggacaggag agccagcagg gtggatgcaa ggggctctta cccacacctg gacctcgtg
3660
ccctcacccc agccctaggt gtgcacctag gcctcattcc ttacccccca gccctcgccc
3720
accttcagca ggatgaggcc ctgggttgcc gtgctctcgc tgttccccctc tcggggctgg
3780
gtgggggccg ctcttgccc caagggtgcc ccggggccag agcccagcca gcagcacagt
3840
ctctatgggt ctgaggaaga gcagcagcag caggatgggt aagtagtaaa ctggggagg
3900
cagggcacag ggagatgctc agggggccagt ccctgtgtct ctgggtgccc gcgagctgag
3960
caccagtggg tgaccgggga gaaacagggc agactgggta agggagcagg gcttactgag
4020
cagtggtgtg caggaggagg agctgggcag ggctgcacc agggaggagt gggagacgag
4080
gtaactcagc agcaatgtca ccttgtagcc tatgcgctca atggcccga ggggcagcaa
4140
ccccccgac acgtcagcca acagcagtc ctctgcaggc accaagagag cgatgatgga
4200
cttgagcgcc gtgtttctca gcctcagctg gaaggggaaa agtcagggcc ttcccgcgg
4260
gggggaagga ggtgggcacg gggggcatgg ggcctggcct ctggccgtgc atcctcactc
4320
ccaccgcct ccagcagccc tctgtcgcc tectccgac ttgactcacc gtcacctgga
4380
agcagggcac cagctgctgg ggtgggactt gggctctcag atcataaact acgtattccc
4440
tcttgacact cacaatctcg ttcaccacgt gggcctggaa ctctaactcc atcgctgagg
4500
ggtgggaatg agaactatga accaggaagg agagatccca gctgccaaagt ctgggggtag
4560
cagactggag cccaggggtg atggagactt ttgatggctt ttggcaggga cagacttgga
4620

cacaaaaccg atccatagaa gggcttccca aacctgtgtt tgcaacatcc caaattgtct
 4680
 ccagttgaag gaaggccttt atcagattca tagatgagct ttcattgtaa aaataaatgt
 4740
 actttgcacc acttcatgat ggaggagaa gtgtgcacag gctcgtcagt ctatcatctc
 4800
 acagctgaag caggatcccc agggctaccg ctgtgggtct tcattggaggg aagggttagga
 4860
 cttctctgcc aagtttagatg tcacctgatg gggtttatata ggggtgggtgc accttcaggt
 4920
 ggtttccagg agtgaggcca tggcaacctg agcctctggc cttgctgcaa ggggccgagc
 4980
 cactgcagtc gccatggctg tggaggggcag ttgctctggg gaggacagaa gactg
 5035

<210> 2674

<211> 690

<212> PRT

<213> Homo sapiens

<400> 2674

Ala	Ala	Gly	Phe	Arg	Ala	Met	Ile	Pro	Pro	Gln	Glu	Ala	Ser	Ala	Arg
1				5				10						15	
Arg	Arg	Glu	Ile	Glu	Asp	Lys	Leu	Lys	Gln	Glu	Glu	Thr	Leu	Ser	
		20						25				30			
Phe	Ile	Arg	Asp	Ser	Leu	Glu	Lys	Ser	Asp	Gln	Leu	Thr	Lys	Asn	Met
		35				40					45				
Val	Ser	Ile	Leu	Ser	Ser	Phe	Glu	Ser	Arg	Leu	Met	Lys	Leu	Glu	Asn
		50				55				60					
Ser	Ile	Ile	Pro	Val	His	Lys	Gln	Thr	Glu	Asn	Leu	Gln	Arg	Leu	Gln
		65			70				75					80	
Glu	Asn	Val	Glu	Lys	Thr	Leu	Ser	Cys	Leu	Asp	His	Val	Ile	Ser	Tyr
			85					90					95		
Tyr	His	Val	Ala	Ser	Asp	Thr	Glu	Lys	Ile	Ile	Arg	Glu	Gly	Pro	Thr
		100						105					110		
Gly	Arg	Leu	Glu	Glu	Tyr	Leu	Gly	Ser	Met	Ala	Lys	Ile	Gln	Lys	Ala
		115				120					125				
Val	Glu	Tyr	Phe	Gln	Asp	Asn	Ser	Pro	Asp	Ser	Pro	Glu	Leu	Asn	Lys
		130				135					140				
Val	Lys	Leu	Leu	Phe	Glu	Arg	Gly	Lys	Glu	Ala	Leu	Glu	Ser	Glu	Phe
			145		150				155					160	
Arg	Ser	Leu	Met	Thr	Arg	His	Ser	Lys	Val	Val	Ser	Pro	Val	Leu	Ile
			165					170						175	
Leu	Asp	Leu	Ile	Ser	Gly	Asp	Asp	Asp	Leu	Glu	Ala	Gln	Glu	Asp	Val
		180						185					190		
Thr	Leu	Glu	His	Leu	Pro	Glu	Ser	Val	Leu	Gln	Asp	Val	Ile	Arg	Ile
		195				200						205			
Ser	Arg	Trp	Leu	Val	Glu	Tyr	Gly	Arg	Asn	Gln	Asp	Phe	Met	Asn	Val
		210				215					220				
Tyr	Tyr	Gln	Ile	Arg	Ser	Ser	Gln	Leu	Asp	Arg	Ser	Ile	Lys	Gly	Leu
		225			230				235					240	
Lys	Glu	His	Phe	His	Lys	Ser	Ser	Ser	Ser	Ser	Gly	Val	Pro	Tyr	Ser
			245					250					255		
Pro	Ala	Ile	Pro	Asn	Lys	Arg	Lys	Asp	Thr	Pro	Thr	Lys	Lys	Pro	Val

	260		265		270
Lys Arg Pro Gly Thr Ile Arg	Lys Ala Gln Asn Leu	Leu Lys Gln Tyr			
275	280	285			
Ser Gln His Gly Leu Asp Gly	Lys Gly Gly Ser	Asn Leu Ile Pro			
290	295	300			
Leu Glu Gly Arg Asp Asp Met	Leu Asp Val Glu Thr	Asp Ala Tyr Ile			
305	310	315			320
His Cys Val Ser Ala Phe Val	Lys Leu Ala Gln Ser	Glu Tyr Gln Leu			
325	330	335			
Leu Ala Asp Ile Ile Pro Glu	His His Gln Lys Lys Thr	Phe Asp Ser			
340	345	350			
Leu Ile Gln Asp Ala Leu Asp	Gly Leu Met Leu Glu Gly	Glu Asn Ile			
355	360	365			
Val Ser Ala Ala Arg Lys	Ala Ile Val Arg His	Asp Phe Ser Thr Val			
370	375	380			
Leu Thr Val Phe Pro Ile Leu	Arg His Leu Lys Gln Thr	Lys Pro Glu			
385	390	395			400
Phe Asp Gln Val Leu Gln Gly	Thr Ala Ala Ser Thr Lys	Asn Lys Leu			
405	410	415			
Pro Gly Leu Ile Thr Ser Met	Glu Thr Ile Gly Ala Lys	Ala Leu Glu			
420	425	430			
Asp Phe Ala Asp Asn Ile Lys	Asn Asp Pro Asp Lys	Glu Tyr Asn Met			
435	440	445			
Pro Lys Asp Gly Thr Val His	Glu Leu Thr Ser Asn	Ala Ile Leu Phe			
450	455	460			
Leu Gln Gln Leu Leu Asp Phe	Gln Glu Thr Ala Gly	Ala Met Leu Ala			
465	470	475			480
Ser Gln Glu Thr Ser Ser Ser	Ala Thr Ser Tyr Ser Ser	Glu Phe Ser			
485	490	495			
Lys Arg Leu Leu Ser Thr Tyr	Ile Cys Lys Val Leu Gly	Asn Leu Gln			
500	505	510			
Leu Asn Leu Leu Ser Lys Ser	Lys Val Tyr Glu Asp	Pro Ala Leu Ser			
515	520	525			
Ala Ile Phe Leu His Asn Asn	Tyr Asn Tyr Ile Leu Lys	Ser Leu Glu			
530	535	540			
Lys Ser Glu Leu Ile Gln Leu	Val Ala Val Thr Gln Lys	Thr Ala Glu			
545	550	555			560
Arg Ser Tyr Arg Glu His Ile	Glu Gln Gln Ile Gln Thr	Tyr Gln Arg			
565	570	575			
Ser Trp Leu Lys Val Thr Asp	Tyr Ile Ala Glu Lys Asn	Leu Pro Val			
580	585	590			
Phe Gln Pro Gly Val Lys Leu	Arg Asp Lys Glu Arg Gln	Ile Ile Lys			
595	600	605			
Glu Arg Phe Lys Gly Phe Asn	Asp Gly Leu Glu Glu Leu	Cys Lys Ile			
610	615	620			
Gln Lys Ala Trp Ala Ile Pro	Asp Thr Glu Gln Arg Asp	Arg Ile Arg			
625	630	635			640
Gln Ala Gln Lys Thr Ile Val	Lys Glu Thr Tyr Gly Ala	Phe Leu Gln			
645	650	655			
Lys Phe Gly Ser Val Pro Phe	Thr Lys Asn Pro Glu Lys	Tyr Ile Lys			
660	665	670			
Tyr Gly Val Glu Gln Val Gly	Asp Met Ile Asp Arg Leu	Phe Asp Thr			
675	680	685			
Ser Ala					

690

<210> 2675

<211> 711

<212> DNA

<213> Homo sapiens

<400> 2675

agatctcagc gaagaggacc cttgttccact gtacctcacc aacttctctc tggagccacc
 60
 tgtgggcatg ctgtcatctc acgtgggggt gcgcgccgtc agcgtcctgg tagagtggga
 120
 gcagtgggag tccctgcgct tcggcgaata tggagaccct ctgcagtggt gagcctgggt
 180
 cgggcagtgc gctctttaca tcgtgatcat gatttttgaa aagtcctgtc tcttcctgt
 240
 cctctccta ctcagtgga aaaaggtggc cctattgaat ccaattgaaa accccagacc
 300
 gaagctggcc atcgtcatgc tgatcgtccc cttctttgtc aacgctttga tgttttgggt
 360
 agtggacaat ttcctcatga gaaaggggaa gacgaaagct aagctagaag aaaggggagc
 420
 caaccaggac tcgaggaatg ggagcaaggt ccgctaccgg agggccgcat cccacaggga
 480
 gtctgagctc gagatcctga tctcagcgga tgatgagatg gaggagtcgg acgtggagga
 540
 ggacctccgc agactgaccc cctcaagcc tgtgaagaaa aagaagcacc gctttggggt
 600
 acccgatga cacattccca tgctgggggt gacggggagg ccccgccagc cgtcgtgtgt
 660
 cagaggtcat cccacagcat cgttccctac cctctctctg cccttcaccc g
 711

<210> 2676

<211> 180

<212> PRT

<213> Homo sapiens

<400> 2676

Met Leu Leu Ile Tyr Val Gly Val Arg Ala Val Ser Val Leu Val Glu
 1 5 10 15
 Trp Gln Gln Trp Glu Ser Leu Arg Phe Gly Glu Tyr Gly Asp Pro Leu
 20 25 30
 Gln Cys Gly Ala Trp Val Gly Gln Cys Ala Leu Tyr Ile Val Ile Met
 35 40 45
 Ile Phe Glu Lys Ser Val Val Phe Ile Val Leu Leu Leu Leu Gln Trp
 50 55 60
 Lys Lys Val Ala Leu Leu Asn Pro Ile Glu Asn Pro Asp Leu Lys Leu
 65 70 75 80
 Ala Ile Val Met Leu Ile Val Pro Phe Phe Val Asn Ala Leu Met Phe
 85 90 95
 Trp Val Val Asp Asn Phe Leu Met Arg Lys Gly Lys Thr Lys Ala Lys
 100 105 110
 Leu Glu Glu Arg Gly Ala Asn Gln Asp Ser Arg Asn Gly Ser Lys Val

```

      115              120              125
Arg Tyr Arg Arg Ala Ala Ser His Glu Glu Ser Glu Ser Glu Ile Leu
      130              135              140
Ile Ser Ala Asp Asp Glu Met Glu Glu Ser Asp Val Glu Glu Asp Leu
145              150              155              160
Arg Arg Leu Thr Pro Leu Lys Pro Val Lys Lys Lys Lys His Arg Phe
      165              170              175
Gly Leu Pro Val
      180

<210> 2677
<211> 735
<212> DNA
<213> Homo sapiens

<400> 2677
ngcgcgccag gaccgctcct gcaccgaggg tgcgcccgcc gctatggagg ccttccagag
60
ggcgcctgggtagg gaggcgccgc cgggccgcgg tggggcacgg cgcggtgccca ggggtgtgca
120
gagccccctt tgcagggcag gagctgggga gtggttagga catcagtcct tcaggtaggg
180
ggagtgagca catcaggctc atatgtgtcc caggagcctc cctagctggc cgccctgagt
240
gctgcagctggg gcagagatgg gcagggtacac ggccctgcct gtgtgagcac cctccctcc
300
gctggggcctc tcagcctcct gaggggagaac ttctcccatg cgccgagccc agacatgagc
360
gctgcgtccc tctgcgcact ggagcagctc atgatggccc agggccaggga atgtgtgttt
420
gaggggcctct caccacctgc ctccatggcc ccccaagact gcctggccca gctgcgcctg
480
gcgcaggagg ccgcccaggt gagctcgggc acccgtgtca ggatgcaggg ggtggggccg
540
agctgggggtc agagcccagg tccaggcatg cgtgagctct cccacctctc tctctgtgtg
600
tcagcccccga gccagctgtt gtccctgtcc ctgggggggg tggtcaggaa cctgggggacc
660
cgagcctctg cctccaggga atggcacaaa gcagcaggaa ctgaggtgcc agggaggctg
720
ctgggatggg ggtcg
735

<210> 2678
<211> 170
<212> PRT
<213> Homo sapiens

<400> 2678
Leu Ala Ala Leu Ser Ala Ala Trp Gly Arg Asp Gly Gln Val His Gly
1 5 10 15
Pro Ala Cys Val Ser Thr Pro Pro Ser Ala Gly Ala Phe Ser Leu Leu
20 25 30
Arg Glu Asn Phe Ser His Ala Pro Ser Pro Asp Met Ser Ala Ala Ser

```


	35		40		45	
Leu	Cys	Ala	Leu	Glu	Gln	Leu
	50		55		60	
Phe	Glu	Gly	Leu	Ser	Pro	Pro
65			70		75	
Ala	Gln	Leu	Arg	Leu	Ala	Gln
	85		90		95	
Arg	Val	Arg	Met	Gln	Gly	Val
	100		105		110	
Pro	Gly	Met	Arg	Glu	Leu	Ser
	115		120		125	
Ser	Gln	Leu	Leu	Ser	Cys	Val
	130		135		140	
Thr	Arg	Ala	Ser	Ala	Ser	Arg
145			150		155	
Val	Pro	Gly	Arg	Leu	Leu	Gly
	165		170			

<210> 2679

<211> 560

<212> DNA

<213> Homo sapiens

<400> 2679

agccgccccca cctcctgttc cattataatc ttatttttgggt tatgttgata caacacaaac
 60
 tgtccttcca agtgcacc ggagtcaga tatttctgtc aagtcagcca accaggaagg
 120
 ggctgcagac aaagtgcggc aacagggact ccaccaggcc atggagctca tccacaaga
 180
 cgctcaccg cacaggagg ctgacccag ggaaacgtgt caccaggaca cagcacgaag
 240
 ctcaaaagg gctagcatgc tctgtgcagc tgccagactc tgccctgaag aatcacaggg
 300
 cactctagt agcgtgcag cagccagcag gccctggatg gccagggtg cagtggggag
 360
 gcacagggg tgcaccagga cgcagccaga cctggggcag ttcgcgcca ctcttctcca
 420
 ttccagaggt ccaggaagca cctgtcaatg tggaagtcag aatgctcagg ccaaataccg
 480
 agatcaacta actattcagg ttgaaccaga ggccctggcg ggggcatcca actgccccc
 540
 cgtcagactg agggacgcgt
 560

<210> 2680

<211> 133

<212> PRT

<213> Homo sapiens

<400> 2680

Met Glu Leu Ile Pro Gln Asp Ala Ser Pro His Arg Arg Ala Asp Pro
 1 5 10 15
 Arg Glu Thr Cys His Gln Asp Thr Ala Arg Ser Ser Lys Gly Ala Ser

```

                20                25                30
Met Leu Cys Ala Ala Ala Arg Leu Cys Pro Glu Glu Ser Gln Gly Thr
   35                40                45
Leu Val Ser Ala Ala Ala Ala Ser Arg Pro Trp Met Ala Arg Cys Ala
   50                55                60
Val Gly Arg His Arg Gly Cys Thr Arg Thr Gln Pro Asp Leu Gly Gln
   65                70                75                80
Phe Ala Pro Thr Leu Leu His Ser Arg Gly Pro Gly Ser Thr Cys Gln
   85                90                95
Cys Gly Ser Gln Asn Ala Gln Ala Lys Tyr Arg Asp Gln Leu Thr Ile
   100                105                110
Gln Val Glu Pro Glu Ala Trp Ala Gly Ala Ser Asn Cys Pro Pro Val
   115                120                125
Arg Leu Arg Asp Ala
   130

```

<210> 2681

<211> 585

<212> DNA

<213> Homo sapiens

<400> 2681

```

gattctctag tagccctaata tctaccctac tggctactaa ttcaaacctt ctctcttcac
60
atctgttgtt ggacttctcc aatataacta gtatgcctgg gctcattctg ctctctctct
120
tctggaatag tttatttcat gaccatgtgc agaggggggtg atggggcaag cctcacaagc
180
cccggaggtc tgtggctgag gtgtaccttg gctttgttgc ctggaaactgc tctgactctg
240
ctcttcgctc ttctcctgggc tgtgtcacta cagctctgac tcctttccac ctggagattt
300
agcttccctg ccaggaaagc taaggagtag gagtgtgtct tggaacaaa tgccgagcga
360
tgtgtctgtg tcatctgggc togagaaggt tcttcattct ctgaatctga gagacgtgca
420
ggacaacggt ccagatttgt ttccagtact aatgggtcat ctcttttttt ctgttcaccc
480
attttctctt tcctctgttc tgtatcctct ggtaacagct tgtggatttg atcttcagag
540
ggtttttctt ctgttaactt ttctctcttc agctttctca agctt
585

```

<210> 2682

<211> 116

<212> PRT

<213> Homo sapiens

<400> 2682

```

Met Asp Glu Gln Lys Lys Arg Asp Glu Pro Leu Val Leu Lys Thr Asn
   1                5                10                15
Leu Glu Arg Cys Pro Ala Arg Leu Ser Asp Ser Glu Asn Glu Glu Pro
   20                25                30
Ser Arg Gly Gln Met Thr Gln Thr His Arg Ser Ala Phe Val Ser Lys

```

```

          35              40              45
Asn Asn Ser Tyr Ser Leu Ala Phe Leu Ala Gly Lys Leu Asn Ser Lys
 50              55              60
Val Glu Arg Ser Gln Ser Cys Ser Asp Thr Ala Gln Glu Arg Ala Lys
 65              70              75              80
Ser Arg Val Arg Ala Val Pro Gly Asn Lys Ala Lys Val His Leu Ser
          85              90              95
His Arg Pro Pro Gly Leu Val Arg Leu Ala Pro Ser Pro Pro Leu His
          100              105              110
Met Val Met Lys
          115

```

<210> 2683

<211> 498

<212> DNA

<213> Homo sapiens

<400> 2683

```

naccggttac actgactcca aaactctcct tggaggccta ggtgaaacct catggccaac
60
atcacctgga tggccaacca cactggaagg ttggaattca tctcatggg acctctcaga
120
cgatccaaac atccagctct acttagtgtg gtcattcttg tggtttctct gatggcggtg
180
cttgaaaaatg ctgtctctgat ccttctgata cactgtgaca cctacctcca caccoccatg
240
tactttttca tcagtcattt gtctctcatg gacatggcgt acattttctg cactgtgccc
300
aagatgctcc tggaccaggt catgggtgtg aataagatct cagccoctga gtgtgggatg
360
cagatgttcc tctatctgac actagcaggt tcggaatttt tctctctage caccatggcc
420
tatgaccgct acgtggccat ctgccatcct ctccgttacc ctgtctctcat gaacctatgg
480
gtctgtcttt tcttgcca
498

```

<210> 2684

<211> 149

<212> PRT

<213> Homo sapiens

<400> 2684

```

Met Ala Asn Ile Thr Trp Met Ala Asn His Thr Gly Arg Leu Asp Phe
 1              5              10              15
Ile Leu Met Gly Leu Phe Arg Arg Ser Lys His Pro Ala Leu Leu Ser
          20              25              30
Val Val Ile Phe Val Val Phe Leu Met Ala Leu Ser Glu Asn Ala Val
          35              40              45
Leu Ile Leu Leu Ile His Cys Asp Thr Tyr Leu His Thr Pro Met Tyr
          50              55              60
Phe Phe Ile Ser Gln Leu Ser Leu Met Asp Met Ala Tyr Ile Ser Val
 65              70              75              80
Thr Val Pro Lys Met Leu Leu Asp Gln Val Met Gly Val Asn Lys Ile

```

```

      85              90              95
Ser Ala Pro Glu Cys Gly Met Gln Met Phe Leu Tyr Leu Thr Leu Ala
      100              105              110
Gly Ser Glu Phe Phe Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Val
      115              120              125
Ala Ile Cys His Pro Leu Arg Tyr Pro Val Leu Met Asn His Arg Val
      130              135              140
Cys Leu Phe Leu Ala
145

```

<210> 2685

<211> 391

<212> DNA

<213> Homo sapiens

<400> 2685

```

ngcggctgac acacgctgcc acctgggctg cctcgaaatg tccatgtgct gaaggtcaag
60
cgcaatgagc tggctgccct ggcacgaggg gcgctggcgg gcatggctca gcttcgggaa
120
ctctacctca caggcaaccg actgcgaagc gggcccttgg gcccccgtgc ctgggtggag
180
ctcgcccatc tgcagttgct ggacatcgcc gggaatcagc tcacagagat cccggagggg
240
ctccccccat cgctggagta tctgtacctg cagaataaca agattagcgc tgttctcgcc
300
agcgcccttg actctactcc caacctcaag gggatctttc tcaggttcaa caagctgggt
360
gtgggctccg tagtagaaag cgccttcggg a
391

```

<210> 2686

<211> 130

<212> PRT

<213> Homo sapiens

<400> 2686

```

Xaa Arg Leu His Thr Leu Pro Pro Gly Leu Pro Arg Asn Val His Val
1      5      10      15
Leu Lys Val Lys Arg Asn Glu Leu Ala Leu Ala Arg Gly Ala Leu
20      25      30
Ala Gly Met Ala Gln Leu Arg Glu Leu Tyr Leu Thr Gly Asn Arg Leu
35      40      45
Arg Ser Arg Ala Leu Gly Pro Arg Ala Trp Val Asp Leu Ala His Leu
50      55      60
Gln Leu Leu Asp Ile Ala Gly Asn Gln Leu Thr Glu Ile Pro Glu Gly
65      70      75      80
Leu Pro Pro Ser Leu Glu Tyr Leu Tyr Leu Gln Asn Asn Lys Ile Ser
85      90      95
Ala Val Pro Ala Ser Ala Phe Asp Ser Thr Pro Asn Leu Lys Gly Ile
100      105      110
Phe Leu Arg Phe Asn Lys Leu Ala Val Gly Ser Val Val Glu Ser Ala
115      120      125
Phe Arg

```

130

<210> 2687

<211> 399

<212> DNA

<213> Homo sapiens

<400> 2687

nagtgcaaga aatgtttaat acaagagatt gaaccctacc aaaatgggag gtttagcctc
 60
 caggaatggg agtgcataa atctctaata caagagattg agcctcacca acctccagga
 120
 tgggaaatga caggtaagac agggactaca aaagaccaag cagacaataa aattccccct
 180
 gacagtccgc taggccttat gttaagatac cggaagata atgaaaggac caaacacaag
 240
 aaaagacagc aatgataaa atattgctgg tttatttga ctaaggaacc catcctgaaa
 300
 ccttttgtct tttggccaca gttagggttg agcggggact ggatattgcca actcctaact
 360
 cagtatgtaa aggataaaaag tccagtttct caagaggag
 399

<210> 2688

<211> 91

<212> PRT

<213> Homo sapiens

<400> 2688

Met	Thr	Gly	Lys	Thr	Gly	Thr	Thr	Lys	Asp	Gln	Ala	Asp	Asn	Lys	Ile
1			5					10					15		
Pro	Pro	Asp	Ser	Pro	Leu	Gly	Leu	Met	Leu	Arg	Tyr	Arg	Lys	Asp	Asn
		20					25					30			
Glu	Arg	Thr	Lys	His	Lys	Lys	Arg	Gln	Gln	Met	Ile	Lys	Tyr	Cys	Trp
	35					40				45					
Phe	Ile	Trp	Thr	Lys	Glu	Pro	Ile	Leu	Lys	Pro	Leu	Val	Phe	Trp	Pro
	50					55				60					
Gln	Leu	Gly	Leu	Ser	Gly	Asp	Trp	Ile	Cys	Gln	Leu	Leu	Ile	Gln	Tyr
65				70				75						80	
Val	Lys	Asp	Lys	Ser	Pro	Val	Ser	Gln	Glu	Glu					
			85					90							

<210> 2689

<211> 560

<212> DNA

<213> Homo sapiens

<400> 2689

gcacccattc aagttgggtt agttggcttc tgtttgggtt ttgctacacc cctgtgttgt
 60
 gcctctgttc ctcagaaaag atacaaaaat gtgggtctca ccaagttgcc caggctggtc
 120
 tcaaaactcct ggctcaaga aatcctcctg gttcagcctc acaaagctcc gagattacag
 180

ttgcattgtct gtgacaagct tggaggccga gttgcaagct aagatccaag agagccatcc
 240
 tgaattgcga cgcggtgtact tcaataaggg attgtaaaag agggaggaaa cctctgcagc
 300
 tcattctgcc actgcaaagc tgggtgtagcc atgctgggtga gaaaaatcct gttcaacctg
 360
 gggtgggtata tcgtctttga aaaacaatga ctataaaagc tacaggaaag gtatttcagg
 420
 acgtttattg aaggcattgg tggagctctc tgtatgtgtt ttgctctgca gggaaactcaa
 480
 agttggcatt cccgtcacgg atgagaatgg gaaccgcttg ggggagtcgg cgaacgctgc
 540
 gaaacaagcc atcacgccag
 560

<210> 2690

<211> 73

<212> PRT

<213> Homo sapiens

<400> 2690

Ala	Pro	Ile	Gln	Val	Gly	Leu	Val	Gly	Phe	Cys	Leu	Val	Phe	Ala	Thr
1			5					10					15		
Pro	Leu	Cys	Cys	Ala	Leu	Phe	Pro	Gln	Lys	Arg	Tyr	Lys	Asn	Val	Gly
		20						25				30			
Leu	Thr	Lys	Leu	Pro	Arg	Leu	Val	Ser	Asn	Ser	Trp	Pro	Gln	Glu	Ile
	35					40					45				
Leu	Leu	Val	Gln	Pro	His	Lys	Ala	Pro	Arg	Leu	Gln	Leu	His	Val	Cys
	50					55					60				
Asp	Lys	Leu	Gly	Gly	Arg	Val	Ala	Ser							
65					70										

<210> 2691

<211> 532

<212> DNA

<213> Homo sapiens

<400> 2691

gatctcatct gtacacactt catggatggc atgaatgagc tggcgattgc ttacatcctg
 60
 caggggggtgc tgaaggccct cgactacatc caccacatgg gatatgtaca caggagtgtc
 120
 aaagccagcc acatcctgat ctctgtggat gggaagggtc acctgtctgg tttgcgcagc
 180
 aacctcagca tgataagcca tgggcagcgg cagcgagtgg tccacgatct tcccaagtac
 240
 agtgtcaagg ttctgcgctg gctcagcccc gaggtcctcc agcagaatct ccagggttat
 300
 gatgcccaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggccat
 360
 gtcccttcta aggatattgc tggcaccagc atgctgctag agaaactgaa cggcacagtg
 420
 ccctgcctgt tggataccag caccatcccc gctgaggagc tgaccatgag cccttcgcgc
 480

tcagtggcca actctggcct gactgacagc ctgaccacca gcacaccccg gg
532

<210> 2692

<211> 177

<212> PRT

<213> Homo sapiens

<400> 2692

Asp	Leu	Ile	Cys	Thr	His	Phe	Met	Asp	Gly	Met	Asn	Glu	Leu	Ala	Ile
1			5					10					15		
Ala	Tyr	Ile	Leu	Gln	Gly	Val	Leu	Lys	Ala	Leu	Asp	Tyr	Ile	His	His
	20						25					30			
Met	Gly	Tyr	Val	His	Arg	Ser	Val	Lys	Ala	Ser	His	Ile	Leu	Ile	Ser
	35					40					45				
Val	Asp	Gly	Lys	Val	Tyr	Leu	Ser	Gly	Leu	Arg	Ser	Asn	Leu	Ser	Met
	50				55				60						
Ile	Ser	His	Gly	Gln	Arg	Gln	Arg	Val	Val	His	Asp	Phe	Pro	Lys	Tyr
65				70				75					80		
Ser	Val	Lys	Val	Leu	Pro	Trp	Leu	Ser	Pro	Glu	Val	Leu	Gln	Gln	Asn
		85					90						95		
Leu	Gln	Gly	Tyr	Asp	Ala	Lys	Ser	Asp	Ile	Tyr	Ser	Val	Gly	Ile	Thr
	100						105					110			
Ala	Cys	Glu	Leu	Ala	Asn	Gly	His	Val	Pro	Phe	Lys	Asp	Met	Pro	Ala
	115					120						125			
Thr	Gln	Met	Leu	Leu	Glu	Lys	Leu	Asn	Gly	Thr	Val	Pro	Cys	Leu	Leu
	130				135					140					
Asp	Thr	Ser	Thr	Ile	Pro	Ala	Glu	Glu	Leu	Thr	Met	Ser	Pro	Ser	Arg
145				150					155					160	
Ser	Val	Ala	Asn	Ser	Gly	Leu	Ser	Asp	Ser	Leu	Thr	Thr	Ser	Thr	Pro
			165					170						175	

Arg

<210> 2693

<211> 798

<212> DNA

<213> Homo sapiens

<400> 2693

gcgtccaga atctcaccag ccttggtggt ctgcatttgc ataacaaccg catccagcat
60
ctgggggacc acagcttcga ggggctgcac aatctggaga cactagacct gaattataac
120
aagctgcagg agttccctgt gcccatccgg accctgggca gactgcagga actgggggttc
180
cataacaaca acatcaaggc catcccagaa aaggccttca tggggaaccc tctgctacag
240
acgatacact tttatgataa cccaatccag tttgtgggaa gatcgggcatt ccagatacctg
300
ccaaaactcc acacactatc tctgaatggt gccatggaca tccaggagtt tccagatctc
360
aaaggcacca ccagcctgga gatectgacc ctgaccgcgc caggcatccg gctgctccca
420

tcggggatgt gccaacagct gccaggctc cgagtcctgg aactgtctca caatcaaatt
 480
 gaggagctgc ccagcctgca caggtgtcag aaattggagg aaatcggcct ccaacacaaac
 540
 cgcatctggg aaattggagc tgacaccttc agccagctga gtcacctgca agccctggat
 600
 ttaaggtgga acgccatccg gtccatccac cccgaggcct tctccacctt gcactccctg
 660
 gtcaagctgg acctgacaga caaccagctg accacactcg ccttggtctgg acttgggggc
 720
 ttgatgcac tgaaagctcaa agggaacctt gctctctccc aggccttctc caaggacagt
 780
 ttcccaaac tgaggatc
 798

<210> 2694

<211> 266

<212> PRT

<213> Homo sapiens

<400> 2694

Ala	Phe	Gln	Asn	Leu	Thr	Ser	Leu	Val	Val	Leu	His	Leu	His	Asn	Asn
1			5						10					15	
Arg	Ile	Gln	His	Leu	Gly	Thr	His	Ser	Phe	Glu	Gly	Leu	His	Asn	Leu
			20					25					30		
Glu	Thr	Leu	Asp	Leu	Asn	Tyr	Asn	Lys	Leu	Gln	Glu	Phe	Pro	Val	Ala
		35					40					45			
Ile	Arg	Thr	Leu	Gly	Arg	Leu	Gln	Glu	Leu	Gly	Phe	His	Asn	Asn	Asn
		50				55					60				
Ile	Lys	Ala	Ile	Pro	Glu	Lys	Ala	Phe	Met	Gly	Asn	Pro	Leu	Leu	Gln
65				70					75					80	
Thr	Ile	His	Phe	Tyr	Asp	Asn	Pro	Ile	Gln	Phe	Val	Gly	Arg	Ser	Ala
			85						90					95	
Phe	Gln	Tyr	Leu	Pro	Lys	Leu	His	Thr	Leu	Ser	Leu	Asn	Gly	Ala	Met
			100					105					110		
Asp	Ile	Gln	Glu	Phe	Pro	Asp	Leu	Lys	Gly	Thr	Thr	Ser	Leu	Glu	Ile
		115				120					125				
Leu	Thr	Leu	Thr	Arg	Ala	Gly	Ile	Arg	Leu	Leu	Pro	Ser	Gly	Met	Cys
		130			135						140				
Gln	Gln	Leu	Pro	Arg	Leu	Arg	Val	Leu	Glu	Leu	Ser	His	Asn	Gln	Ile
145				150					155					160	
Glu	Glu	Leu	Pro	Ser	Leu	His	Arg	Cys	Gln	Lys	Leu	Glu	Glu	Ile	Gly
			165						170					175	
Leu	Gln	His	Asn	Arg	Ile	Trp	Glu	Ile	Gly	Ala	Asp	Thr	Phe	Ser	Gln
			180					185					190		
Leu	Ser	Ser	Leu	Gln	Ala	Leu	Asp	Leu	Arg	Trp	Asn	Ala	Ile	Arg	Ser
		195				200					205				
Ile	His	Pro	Glu	Ala	Phe	Ser	Thr	Leu	His	Ser	Leu	Val	Lys	Leu	Asp
		210				215					220				
Leu	Thr	Asp	Asn	Gln	Leu	Thr	Thr	Leu	Pro	Leu	Ala	Gly	Leu	Gly	Gly
225				230					235					240	
Leu	Met	His	Leu	Lys	Leu	Lys	Gly	Asn	Leu	Ala	Leu	Ser	Gln	Ala	Phe
			245						250					255	
Ser	Lys	Asp	Ser	Phe	Pro	Lys	Leu	Arg	Ile						

260

265

<210> 2695
<211> 2265
<212> DNA
<213> Homo sapiens

<400> 2695
nagccagagg gacgagctag cccgacgatg gccacgggga cattgatccg tgtgacccca
60
gagcagccca cccatgcccgt gtgtgtgtctg ggcaccttga ctacgtctga catctgcagc
120
tctgccccctg aggactgcac gtcccttcagc atcaacgcct cccagggggt ggtcgtggat
180
attgcccaca gccctccagc caagaagaaa tccacaggtt cctccacatg gccctgggac
240
cctggggtag aggtgaccct gacgatgaaa gcggccagtg gtagcacagg cgaccagaag
300
gttcagattt catactacgg acccaagact ccaccagtca aagctctact ctacctcacc
360
gcggtggaaa tctccctgtg cgcagacatc acccgacccg gcaaagtga gccaaccaga
420
gctgtgaag atcagaggac ctggacctgg ggcccttctg gacaggggtgc catcctgctg
480
gtgaactgtg acagagacaa tctcgaatct tctgccatgg actgcgagga tgatgaagtg
540
cttgacagcg aagacctgca ggacatgtcg ctgatgacc tgagcacgaa gacccccaa
600
gacttcttca caaacctac actggtgtct cactgtggca ggtctgagat ggacaaagt
660
agggtgtttc agggcacacg gggcaaaactg tctccaaagt gcagcgtagt cttgggtccc
720
aagtggccct ctactacct gatggtcccc ggtggaaagc acaacatgga ctctacgtg
780
gaggccctcg ctttcccga caccgaattc ccggggctca ttacctcac catctccctg
840
ctggacacgt ccaacctgga gctccccag gctgtggtgt tccaagacag cgtggtcttc
900
cgctgtggcg cctggatcat gacccccaac acccagcccc cgcaggaggt gtacgcgtgc
960
agtatttttg aaaatgagga ctctctgaag tcagtgaact ctctggccat gaaagccaag
1020
tgcaagctga ccatctgccc tgaggaggag aacatggatg accagtggat gcaggatgaa
1080
atggagatcg gctacatcca agccccacac aaaacgctgc ccgtggtctt cgactctcca
1140
aggaacagag gcctgaagga gtttcccatc aaacgagtg tgggtccaga ttttggctat
1200
gtaaactcag gggcccaaac aggggggtatc agtggactgg actccttttg gaacctggaa
1260
gtgagccccc cagtccacagt caggggcaag gaataccccc tgggcaggat tctcttcggg
1320
gacagctgtt atcccagcaa tgacagcccg cagatgcacc agggccctgca ggacttcttc
1380

agtgcccagc aggtgcaggg cctgtgaag ctctattctg actggctgtc cgtggggcac
 1440
 gtggacgagt tcttgagctt tgtgccagca cccgacagga agggcttccg gctgctcctg
 1500
 gccagcccca ggtcctgcta caaactgttc caggagcagc agaatgaggg ccacggggag
 1560
 gccttgctgt tcgaagggat caagaaaaaa aaacagcaga aaataaagaa cattctgtca
 1620
 aacaagacat tgagagaaca taattcattt gtggagagat gcacgactg gaaccgagag
 1680
 ctgctgaagc gggagctggg cctggccgag agtgacatca ttgacatccc gcagctcttc
 1740
 aagctcaaaag agttctctaa ggcggaagct tttttcccca acatggtgaa catgctgggtg
 1800
 ctagggaagc acctgggcat ccccaagccc ttggggcccg tcatcaacgg ccgctgctgc
 1860
 ctggaggaga aggtgtgttc cctgctggag ccactggggc tccagtgac cttcatcaac
 1920
 gacttcttca cctaccacat caggcatggg gaggtgcact gcggcaccaa cgtgcgcaga
 1980
 aagcccttct ccttcaagtg gtggaacatg gtgccctgag cccatcttcc ctggcgctct
 2040
 ctccctcctg gccagatgtc gctgggtcct ctgcagtggt gcaagcaaga gctcttctga
 2100
 atattgtggc tccctggggg cggccagccc tcccagcagt ggcttgcttt cttctcctgt
 2160
 gatgtccagc ttccaccac tgaagatccc aacatggctc tagcactgca cactcagttc
 2220
 tgctctaaga agctgcaata aagttttttt aagtcacttt gtaca
 2265

<210> 2696

<211> 663

<212> PRT

<213> Homo sapiens

<400> 2696

Met Ala Gln Gly Thr Leu Ile Arg Val Thr Pro Glu Gln Pro Thr His
 1 5 10 15
 Ala Val Cys Val Leu Gly Thr Leu Thr Gln Leu Asp Ile Cys Ser Ser
 20 25 30
 Ala Pro Glu Asp Cys Thr Ser Phe Ser Ile Asn Ala Ser Pro Gly Val
 35 40 45
 Val Val Asp Ile Ala His Ser Pro Pro Ala Lys Lys Lys Ser Thr Gly
 50 55 60
 Ser Ser Thr Trp Pro Leu Asp Pro Gly Val Glu Val Thr Leu Thr Met
 65 70 75 80
 Lys Ala Ala Ser Gly Ser Thr Gly Asp Gln Lys Val Gln Ile Ser Tyr
 85 90 95
 Tyr Gly Pro Lys Thr Pro Pro Val Lys Ala Leu Leu Tyr Leu Thr Ala
 100 105 110
 Val Glu Ile Ser Leu Cys Ala Asp Ile Thr Arg Thr Gly Lys Val Lys
 115 120 125
 Pro Thr Arg Ala Val Lys Asp Gln Arg Thr Trp Thr Trp Gly Pro Cys

130		135		140
Gly Gln Gly Ala Ile	Leu Leu Val Asn Cys Asp	Arg Asp Asn Leu Glu		
145	150	155	160	
Ser Ser Ala Met Asp	Cys Glu Asp Asp Glu Val	Leu Asp Ser Glu Asp		
	165	170	175	
Leu Gln Asp Met Ser	Leu Met Thr Leu Ser Thr	Lys Thr Pro Lys Asp		
	180	185	190	
Phe Phe Thr Asn His	Thr Leu Val Leu His Val	Ala Arg Ser Glu Met		
	195	200	205	
Asp Lys Val Arg Val	Phe Gln Ala Thr Arg Gly	Lys Leu Ser Ser Lys		
	210	215	220	
Cys Ser Val Val Leu	Gly Pro Lys Trp Pro Ser	His Tyr Leu Met Val		
225	230	235	240	
Pro Gly Gly Lys His	Asn Met Asp Phe Tyr Val	Glu Ala Leu Ala Phe		
	245	250	255	
Pro Asp Thr Asp Phe	Pro Gly Leu Ile Thr Leu Thr	Ile Ser Leu Leu		
	260	265	270	
Asp Thr Ser Asn Leu	Glu Leu Pro Glu Ala Val	Val Phe Gln Asp Ser		
	275	280	285	
Val Val Phe Arg Val	Ala Pro Trp Ile Met Thr	Pro Asn Thr Gln Pro		
	290	295	300	
Pro Gln Glu Val Tyr	Ala Cys Ser Ile Phe Glu	Asn Glu Asp Phe Leu		
305	310	315	320	
Lys Ser Val Thr Thr	Leu Ala Met Lys Ala Lys	Cys Lys Leu Thr Ile		
	325	330	335	
Cys Pro Glu Glu Glu	Asn Met Asp Asp Gln Trp	Met Gln Asp Glu Met		
	340	345	350	
Glu Ile Gly Tyr Ile	Gln Ala Pro His Lys Thr	Leu Pro Val Val Phe		
	355	360	365	
Asp Ser Pro Arg Asn	Arg Gly Leu Lys Glu Phe	Pro Ile Lys Arg Val		
	370	375	380	
Met Gly Pro Asp Phe	Gly Tyr Val Thr Arg Gly	Pro Gln Thr Gly Gly		
385	390	395	400	
Ile Ser Gly Leu Asp	Ser Phe Gly Asn Leu Glu	Val Ser Pro Pro Val		
	405	410	415	
Thr Val Arg Gly Lys	Glu Tyr Pro Leu Gly Arg	Ile Leu Phe Gly Asp		
	420	425	430	
Ser Cys Tyr Pro Ser	Asn Asp Ser Arg Gln Met	His Gln Ala Leu Gln		
	435	440	445	
Asp Phe Leu Ser Ala	Gln Gln Val Gln Ala Pro	Val Lys Leu Tyr Ser		
	450	455	460	
Asp Trp Leu Ser Val	Gly His Val Asp Glu Phe	Leu Ser Phe Val Pro		
465	470	475	480	
Ala Pro Asp Arg Lys	Gly Phe Arg Leu Leu Leu	Ala Ser Pro Arg Ser		
	485	490	495	
Cys Tyr Lys Leu Phe	Gln Glu Gln Gln Asn Glu	Gly His Gly Glu Ala		
	500	505	510	
Leu Leu Phe Glu Gly	Ile Lys Lys Lys Lys Gln	Gln Lys Ile Lys Asn		
	515	520	525	
Ile Leu Ser Asn Lys	Thr Leu Arg Glu His Asn	Ser Phe Val Glu Arg		
	530	535	540	
Cys Ile Asp Trp Asn	Arg Glu Leu Leu Lys Arg	Glu Leu Gly Leu Ala		
545	550	555	560	
Glu Ser Asp Ile Ile	Asp Ile Pro Gln Leu Phe	Lys Leu Lys Glu Phe		

	565		570		575
Ser	Lys	Ala	Glu	Ala	Phe
	580		585		590
Gly	Lys	His	Leu	Gly	Ile
	595		600		605
Arg	Cys	Cys	Leu	Glu	Glu
	610		615		620
Leu	Gln	Cys	Thr	Phe	Ile
	625		630		635
Gly	Glu	Val	His	Cys	Gly
	645		650		655
Lys	Trp	Trp	Asn	Met	Val
	660				

<210> 2697

<211> 2468

<212> DNA

<213> Homo sapiens

<400> 2697

cagggcagcc cggggaagc gtccgggacc atgtctggag aactaccacc aaacattaac
 60
 atcaaggaac ctccgatgga tcaaagcact ttcattggac gagccaatca tttcttcact
 120
 gtaactgacc ccaggaacat tctgttaacc aacgaacaac tcgagagtgc gagaaaaata
 180
 gtacatgatt acaggcaagg aattgttctc cctggtctta cagaaaatga attgtggaga
 240
 gcaaagtaca tctatgattc agcttttcat cctgacactg gtgagaagat gattttgata
 300
 ggaagaatgt cagcccaggt tcccatgaac atgaccatca caggttgat gatgacgttt
 360
 tacaggacta cgcgcgctgt gctgttctgg cagtggatta accagtcctt caatgccgtc
 420
 gtcaattaca ccaacagaag tggagacgca cccctcactg tcaatgagtt gggaacagct
 480
 tacgtttctg caacaactgg tgccgtagca acagctctag gactcaatgc attgaccaag
 540
 catgtctcac cactgatagg acgttttgtt ccttttctgt ccgtagctgc tgctaatgct
 600
 attaatattc cattaatgag gcaaaggga ctcaaagttg gcattcccgt cacggatgag
 660
 aatgggaacc gcttggggga gtcggcgaac gctgcgaac aagccatcac gcaagtgtgc
 720
 gtgtccagga ttctcatggc agcccttgcc atggccatcc tcctattcat tatgaacact
 780
 ttggaaaaga aagccttttt gaagagggtc ccatggatga gtgcacccat tcaagttggg
 840
 ttagtggct tctgtttggt gtttgctaca cccctgtggt gtgcctgtt tcctcagaaa
 900
 agttccatgt ctgtgacaag cttggaggcc gagttgcaag ctaagatcca agagagccat
 960
 cctgaattgc gacgcgtgta cttcaataag ggattgtaaa gcagggagga aacctctgca
 1020

gctcattctg ccaactgcaaa gctggtgtag ccatgctggt gagaaaaac ctgttcaacc
1080
tgggtttctcc cagttacgga aaccttttaa agatccacat tagcctttta gaataaagct
1140
gctacttttaa cagagcacct ggcggtggcc aagtgcctga tactccctta cactgaatca
1200
tgttatgatt tatagaaata cctttcctgt agcttttata gtcattgttt ttcaaagacg
1260
ataataccagc cctcaccagc gttttaaaaa agcactggta ggcatagaat aggtgtctcag
1320
tatattgggtca gtaaatgttc tattgattat caatcagtgta aaaaagaat ctgtttaaaa
1380
tactgaattt tcattctact ccattgcaa atcaaggaga tctcagcagt gaactgggaa
1440
aatacaaaaag ctctgggcta atctataaaa acttaccctg aaatattaag ggcagtttgc
1500
ttctagtttg gggattgctc tagcccaatg aaggtgatga agcttttgga tttggagggt
1560
aaaagctcct tcacaccct tccaaaagtc agtcacagac cactgcaaca tgccttcctt
1620
gctggatcat tatatacatt cagatttgta gtggattgct ttggttgact ttaattttat
1680
tgttttttgt tcttataaa atgataatct taccttgagc ttattgactt tatattcaat
1740
tatttacatc aaataatgaa ataactgaaa tgtacaaatg tcaaattttg gaagtatat
1800
caataccaat gctgtatgag tgggctgaat ccagttcatt gtgttttttt ttggttaagaa
1860
gtgagactac agttccagct acctacatgt cttttcttgt catccttata gatctctttg
1920
gctttcagaa agatacagtg ataattgttg tatgaatcag tcacaatgaa ttttacttga
1980
atatgtatg ttgcattcca cttcatttga aaataatgaa accatgtacc actgtttaca
2040
tcattctgag tgatttcata gataatatat ttaatatgac agattatgtt tcaactctgt
2100
agatgtttta cgtcatagac agtcggccct ctgtatccgt gagctctata tctgtgaatt
2160
caaccaagtt tggatgggaa aatttttttt ttttttttga gacggagtct cgctctgtca
2220
ccaggctgg agtgacagtg cgtagtctcg gctcactgca agctccgct cccgggttca
2280
cgcggttctc ctgcctcagc ccctctgaga agctgggact acaggcgccc gccaccacgc
2340
cggctaaatt tttttgtatt tttagtagag acgggggttc actgtggtct cgatctcctg
2400
acctcgtgat cggcccgct tggcctccca aggtgctggg attgcaggcg tgagccaccg
2460
caccggg
2468

<210> 2698

<211> 332

<212> PRT

<213> Homo sapiens

<400> 2698

Gln Gly Ser Pro Gly Glu Ala Ser Gly Thr Met Ser Gly Glu Leu Pro
 1 5 10 15
 Pro Asn Ile Asn Ile Lys Glu Pro Arg Trp Asp Gln Ser Thr Phe Ile
 20 25 30
 Gly Arg Ala Asn His Phe Phe Thr Val Thr Asp Pro Arg Asn Ile Leu
 35 40 45
 Leu Thr Asn Glu Gln Leu Glu Ser Ala Arg Lys Ile Val His Asp Tyr
 50 55 60
 Arg Gln Gly Ile Val Pro Pro Gly Leu Thr Glu Asn Glu Leu Trp Arg
 65 70 75 80
 Ala Lys Tyr Ile Tyr Asp Ser Ala Phe His Pro Asp Thr Gly Glu Lys
 85 90 95
 Met Ile Leu Ile Gly Arg Met Ser Ala Gln Val Pro Met Asn Met Thr
 100 105 110
 Ile Thr Gly Cys Met Met Thr Phe Tyr Arg Thr Thr Ala Val Leu
 115 120 125
 Phe Trp Gln Trp Ile Asn Gln Ser Phe Asn Ala Val Val Asn Tyr Thr
 130 135 140
 Asn Arg Ser Gly Asp Ala Pro Leu Thr Val Asn Glu Leu Gly Thr Ala
 145 150 155 160
 Tyr Val Ser Ala Thr Thr Gly Ala Val Ala Thr Ala Leu Gly Leu Asn
 165 170 175
 Ala Leu Thr Lys His Val Ser Pro Leu Ile Gly Arg Phe Val Pro Phe
 180 185 190
 Ala Ala Val Ala Ala Ala Asn Cys Ile Asn Ile Pro Leu Met Arg Gln
 195 200 205
 Arg Glu Leu Lys Val Gly Ile Pro Val Thr Asp Glu Asn Gly Asn Arg
 210 215 220
 Leu Gly Glu Ser Ala Asn Ala Ala Lys Gln Ala Ile Thr Gln Val Val
 225 230 235 240
 Val Ser Arg Ile Leu Met Ala Ala Pro Gly Met Ala Ile Pro Pro Phe
 245 250 255
 Ile Met Asn Thr Thr Leu Glu Lys Lys Ala Phe Leu Lys Arg Phe Pro Trp
 260 265 270
 Met Ser Ala Pro Ile Gln Val Gly Leu Val Gly Phe Cys Leu Val Phe
 275 280 285
 Ala Thr Pro Leu Cys Cys Ala Leu Phe Pro Gln Lys Ser Ser Met Ser
 290 295 300
 Val Thr Ser Leu Glu Ala Glu Leu Gln Ala Lys Ile Gln Glu Ser His
 305 310 315 320
 Pro Glu Leu Arg Arg Val Tyr Phe Asn Lys Gly Leu
 325 330

<210> 2699

<211> 974

<212> DNA

<213> Homo sapiens

<400> 2699

gaagcccgcg gaggagcggg taagagcccc gcgaatccgg ccccaacctc gggaacggga
 60

tgggagggcg ccttggcgc aagccccgcg ctgctagcgg gtccaccgcg tctgtagccga
 120
 cagccgcctt tcttctctgc agcgcgcgcg gattcaccag cctgggtccct tctgcgggaga
 180
 gcgatggcgc ttccccgacac catgttctgc gctcagcaga tccacattcc cccggagctg
 240
 ccggacatcc tgaagcaatt caccaaggct gccatccgca cccagccggc cgacgtgctg
 300
 cgggtggtcgg caggggtattt ttcagctctg tctgagaggag atccacttcc tgtaaaggac
 360
 agaatggaaa tgctgtgctg aaccagaaa acagacacag gcctgactca aggactcctg
 420
 aaagttttgc acaagcagtg tcaccacaag cggtatgtgg aattaacaga tcttgagcag
 480
 aagtgggaaga acttgtgcct gccgaaggaa aaattcaaag cgctcttaca actggatcct
 540
 tgtgaaaaca aaatcaagtg gataaaacttt ttacgccttg gatgcagcat gcttggtggg
 600
 tccttgaaca ctgcgctgaa gcacctgtgc gagatcctca cggacgatcc ggaggcgggc
 660
 ccgctcgcat ccccttcaag acgttttctt acgtttaccg ctacttggcc agattagact
 720
 cagatgtgtc tcccttggag acggaatcct accttgccct tctaaaggaa aatatagacg
 780
 ccaggaagaa cgccatgata ggtctttcag attctctctt tccaaaggag aaacttttag
 840
 aaagcattga aaactctgaa gatgtaggcc attaatacac agaagaatac attttaatgt
 900
 caaaaatagtg ctcttttaaaa ttctggcacc aaatacaact taccctgaat cacaaaaaaa
 960
 aaaaaaaaaa aaaa
 974

<210> 2700

<211> 177

<212> PRT

<213> Homo sapiens

<400> 2700

Met Pro Leu Pro Asp Thr Met Phe Cys Ala Gln Gln Ile His Ile Pro
 1 5 10 15
 Pro Glu Leu Pro Asp Ile Leu Lys Gln Phe Thr Lys Ala Ala Ile Arg
 20 25 30
 Thr Gln Pro Ala Asp Val Leu Arg Trp Ser Ala Gly Tyr Phe Ser Ala
 35 40 45
 Leu Ser Arg Gly Asp Pro Leu Pro Val Lys Asp Arg Met Glu Met Pro
 50 55 60
 Val Ala Thr Gln Lys Thr Asp Thr Gly Leu Thr Gln Gly Leu Leu Lys
 65 70 75 80
 Val Leu His Lys Gln Cys His His Lys Arg Tyr Val Glu Leu Thr Asp
 85 90 95
 Leu Glu Gln Lys Trp Lys Asn Leu Cys Leu Pro Lys Glu Lys Phe Lys
 100 105 110
 Ala Leu Leu Gln Leu Asp Pro Cys Glu Asn Lys Ile Lys Trp Ile Asn

	115		120		125	
Phe	Leu	Ala	Leu	Gly	Cys	Ser
	130		135		140	
Leu	Lys	His	Leu	Cys	Glu	Ile
145			150		155	
Leu	Ala	Ser	Pro	Ser	Arg	Arg
	165		170		175	

Asp

<210> 2701

<211> 646

<212> DNA

<213> Homo sapiens

<400> 2701

```

ncccaaggtg gaggaaggcc tgcgagaagg acagtaagag atgctgagaa caggaataca
60
aaatcagctt tgacctgaag agtctacagt ccagttgaga agacagtcca ggacacacgt
120
agcacactga gaggatgatt taagaaaaac tggctgggca cgggtgtcca tgctgtaat
180
cccagcactt tgggaggcca aaatgccagc agctcttcct tgcagagat gatctgacct
240
ggtgggggca gctggaagc aacactggcc ccagctgaa gggcccagct gcagccagac
300
agatggtgct tgagaaccga ggcccggtag tctccagacc acagtcagc ccaaccactg
360
ccactttcca tgggaacttag aacttcggag ttgctgcctt gcaattggag gaaggacctg
420
gggcccggag accaggagag ccgctggaag cagtacctgg aggcagagag gatcgcgctt
480
ttcctgcaga acgaggagtt catgaaggaa ctgcaacgga accgcgaact cctcctcgtc
540
ctggagagag atcgattgaa atacgaatcc cagaaatcta aatccagcag cgtggctgtc
600
ggaaacgact ttggcttttc ctctcctgtc ccaggaactg gcgacg
646

```

<210> 2702

<211> 92

<212> PRT

<213> Homo sapiens

<400> 2702

```

Met Gly Leu Arg Thr Ser Glu Leu Leu Pro Cys Asn Trp Arg Lys Asp
1          5          10          15
Leu Gly Pro Gly Asp Gln Glu Ser Arg Trp Lys Gln Tyr Leu Glu Asp
20          25          30
Glu Arg Ile Ala Leu Phe Leu Gln Asn Glu Glu Phe Met Lys Glu Leu
35          40          45
Gln Arg Asn Arg Asp Phe Leu Leu Ala Leu Glu Arg Asp Arg Leu Lys
50          55          60
Tyr Glu Ser Gln Lys Ser Lys Ser Ser Val Ala Val Gly Asn Asp

```



```

65              70              75              80
Phe Gly Phe Ser Ser Pro Val Pro Gly Thr Gly Asp
      85              90

<210> 2703
<211> 610
<212> DNA
<213> Homo sapiens

<400> 2703
gaagacatgg gcaaaagcat cccccaatac ctgggggcaac tggacatccg caaaagcgta
60
gtcagcctgg ccacaggcgc cggggcgatc tacctgctct acaaggccat caaggctggc
120
ataaaatgca aaccaccctt ctgtagcaac tcacccatct gcatcgcccg tgaatgttcg
180
ggcccttggg gaaaagggtt cttgcccca gaaggaacct tgctcccaag gcctttgctg
240
ggggaggggg ccaaaggga ggccccaag tccctctttt tctttgatct ttctttgtc
300
catcttcttc aagcccccgc tgcagcgtcc taggcaaggc cctgccagag atgctagctc
360
agggctccct gatctcactc aagtggatcc tcagactcat ctggcaggtc tccaaatact
420
acatttcttc tggctcccag gattccactt cttggaaact tgggtgcggc agctccccc
480
atcccttttc tgccctagga acgtgaggct ttaaggaag ggaagattgg aggacttact
540
atatgcccag agcttccact agtcacatg ttcttttggt cagagtagga aaatgagccc
600
cttcacgcgt
610

<210> 2704
<211> 108
<212> PRT
<213> Homo sapiens

<400> 2704
Met Gly Lys Ser Ile Pro Gln Tyr Leu Gly Gln Leu Asp Ile Arg Lys
1      5      10      15
Ser Val Val Ser Leu Ala Thr Gly Ala Gly Ala Ile Tyr Leu Leu Tyr
20      25      30
Lys Ala Ile Lys Ala Gly Ile Lys Cys Lys Pro Pro Leu Cys Ser Asn
35      40      45
Ser Pro Ile Cys Ile Ala Arg Glu Cys Ser Gly Pro Trp Gly Lys Gly
50      55      60
Leu Leu Pro Pro Glu Gly Thr Leu Leu Pro Arg Pro Leu Leu Gly Glu
65      70      75      80
Gly Pro Lys Gly Glu Ala Ser Lys Phe Pro Leu Phe Phe Asp Leu Ser
85      90      95
Leu Val His Leu Pro Gln Ala His Pro Ala Ala Ser
100      105

```

<210> 2705
 <211> 843
 <212> DNA
 <213> Homo sapiens

<400> 2705
 nnacgcgtga cgtcccgcgt gatggctggg agggcccgcc gccgacagcg gaggcagaga
 60
 ggaaggcggg tctgagagct tcagagagcg atggaaagca aaatgggtga attgccttta
 120
 gacatcaaca tccaggaacc tcgctgggac caaagtactt tccctggcag agcccggcac
 180
 ttttctactg ttactgatcc tcgaaatctg ctgctgtccg gggcacagct ggaagcttct
 240
 cggaacatcg tgcagaacta cagggccggc gtggtgaccc cagggatcac cgaggaccag
 300
 ctgtggaggg ccaagtatgt gtatgactcc gccttccatc cggacacagg ggagaagggtg
 360
 gtccgtattg gccgcatgtc agcccagggt cccatgaaca tgaccatcac tggctgcattg
 420
 ctcacattct acaggaagac cccaaccgtg gtgttctggc agtgggtgaa tcagtccttc
 480
 aatgccattg ttaactactc caaccgcagt ggtgacactc ccatcactgt gaggcagctg
 540
 gggacagcct atgtgagtgc caccactgga gctgtggcca cggccctggg actcaaatcc
 600
 ctcaccaagc aactgcccc cttggtcggc agattcgtac ctttgcagc agtggcagct
 660
 gcccaactga tcaacatccc cctgatgagg cagaggggagc tgcaggtggg catcccagtg
 720
 actgatgaag ctggtcagag acttggccac tcggtgactg ctgccaaaca gggcatcttc
 780
 cagggtgttg tatcagaat cggcatggcg atccccgcca tggccattcc cccgggtgatc
 840
 atg
 843

<210> 2706
 <211> 251
 <212> PRT
 <213> Homo sapiens

<400> 2706
 Met Glu Ser Lys Met Gly Glu Leu Pro Leu Asp Ile Asn Ile Gln Glu
 1 5 10 15
 Pro Arg Trp Asp Gln Ser Thr Phe Leu Gly Arg Ala Arg His Phe Phe
 20 25 30
 Thr Val Thr Asp Pro Arg Asn Leu Leu Leu Ser Gly Ala Gln Leu Glu
 35 40 45
 Ala Ser Arg Asn Ile Val Gln Asn Tyr Arg Ala Gly Val Val Thr Pro
 50 55 60
 Gly Ile Thr Glu Asp Gln Leu Trp Arg Ala Lys Tyr Val Tyr Asp Ser
 65 70 75 80
 Ala Phe His Pro Asp Thr Gly Glu Lys Val Val Leu Ile Gly Arg Met

	85		90		95										
Ser	Ala	Gln	Val	Pro	Met	Asn	Met	Thr	Ile	Thr	Gly	Cys	Met	Leu	Thr
	100							105					110		
Phe	Tyr	Arg	Lys	Thr	Pro	Thr	Val	Val	Phe	Trp	Gln	Trp	Val	Asn	Gln
	115						120					125			
Ser	Phe	Asn	Ala	Ile	Val	Asn	Tyr	Ser	Asn	Arg	Ser	Gly	Asp	Thr	Pro
	130					135						140			
Ile	Thr	Val	Arg	Gln	Leu	Gly	Thr	Ala	Tyr	Val	Ser	Ala	Thr	Thr	Gly
	145				150					155					160
Ala	Val	Ala	Thr	Ala	Leu	Gly	Leu	Lys	Ser	Leu	Thr	Lys	His	Leu	Pro
		165						170						175	
Pro	Leu	Val	Gly	Arg	Phe	Val	Pro	Phe	Ala	Ala	Val	Ala	Ala	Ala	Asn
		180						185					190		
Cys	Ile	Asn	Ile	Pro	Leu	Met	Arg	Gln	Arg	Glu	Leu	Gln	Val	Gly	Ile
	195						200					205			
Pro	Val	Thr	Asp	Glu	Ala	Gly	Gln	Arg	Leu	Gly	His	Ser	Val	Thr	Ala
	210					215					220				
Ala	Lys	Gln	Gly	Ile	Phe	Gln	Val	Val	Val	Ser	Arg	Ile	Gly	Met	Ala
	225				230						235				240
Ile	Pro	Ala	Met	Ala	Ile	Pro	Pro	Val	Ile	Met					
		245						250							

<210> 2707

<211> 2921

<212> DNA

<213> Homo sapiens

<400> 2707

nnggcgagtg gcgagtggcg agtgtcaggg gggcgccggg cgggggcccgg gcggccggag
 60
 gaggcgttgg cagcgggctc ggacccacgc ggcgcccggg cccgcctggc ctgcagcgct
 120
 cccacccccg gcggcggcac gatgcccttt gacttcagga ggtttgacat ctacaggaag
 180
 gtgcccaagg accttacgca gccaacgtac accggggcca ttatctccat ctgctgctgc
 240
 ctcttcaccc tcttctctct cctctcggag ctcaccggat ttataacgac agaagttgtg
 300
 aacgagctct atgtcgatga ccagacaaag gacagcgggt gcaagatcga cgtcagtcgt
 360
 aacatcagtt tacccaatct gcaactgcgag ttgggtgggc ttgacattca ggatgagatg
 420
 ggcaggcacg aagtggggcca catcgacaac tccatgaaga tcccgcctgaa caatggggca
 480
 ggctgccgct tegaggggca gttcagcacc aacaaggtcc cgggcaactt ccacgtgtcc
 540
 acacacagtg ccacagccca gccacagaac ccagacatga cgcagtgtcat ccacaagctc
 600
 tcctttgggg acacgctaca ggtccagaac atccacggag ctttcaatgc tctcggggga
 660
 gcagacagac tcacctccaa cccctgggcc tcccacgact acatcctgaa gattgtgcc
 720
 acgggttatg aggacaagag tggcaagcag cggtactcct accagtacac ggtggccaac
 780

aaggaaatcgc tcgcctacag ccacacgggc cgcacatcc ctgcaatctg gttccgctac
840
gacctcagcc ccatcacggt caagtagaca gagagacggc agccgctgta cagattcatc
900
accacgatct gtgccatcat tggcgggacc ttcaccgtcg ccggcatcct ggactcatgc
960
atcttcacag cctctgaggc ctggaagaag atccagctgg gcaagatgca ttgacgccac
1020
accagccta atggccgagg accctgggca tcgccagcct tgccctcagc gccctgtctc
1080
ctttggccct caatctgggc ccaaatctgg ctgtgtccca aagggtgtgt gggaaagtggg
1140
gggaaagtag aggatggctc gatgttttgc agctacacct tttccccgtg tttcttttta
1200
gacaaattac actgcctgaa gttgcagttc ccccttccct ggggagcccc aagaacagag
1260
tcaggcaagg ggtggggagt ccagggatct tggggacccc tcctaggaga gctgcagctc
1320
cttccctcag gggaacatcc cagaatgcat atcgatcagc tctcagccag gcttcgacaa
1380
tctcgcagcc cccactaggt ggacacatta atgatttggc ttctccctcg ggcagccaac
1440
ctgccccaga ggcaccagac ctgggcttcc agctttggga ccaggctgcc caaaggctact
1500
cctttatata cccggcacct tccacgaaag atggctactc ccaagcaagc cccatgatgt
1560
tgtcactata gatggaacct tgacttctgc cccatccctt cctgccaac ctagaaccca
1620
ggcctcaagt ctttaccoca cccctttctt gttcttccaa gaagcagatg cccagttgct
1680
cagcagcagc ggtagagact tgaatctgcc caccagtcac aaggcgggtc acagattcct
1740
cttctctctt tctcctcgtt cctctgaacc ctccaccaat gtgcctcagc ctgtgtgctg
1800
tgtggcaaca gcattctggt tcccactgcc aagatctccc accactctgc tgggactctg
1860
agtggcaggg agtgggggtt gtgtaaaggg gaagtcatct tttagatcc agatagacat
1920
ggtttgtgca cttacgtcca gatgggaagc atccttccct caacctaaa ataactatgc
1980
agcctctcag acggacgcca tcggtcccaa ggccttaggt ggaggaagca aagcaggcca
2040
ggcctgtcct gtccgtggac ctctaccttc tggactccct acgggtgcag agcacttggg
2100
ttctctaca gccatcgtgg cccacttgac actgtgctcc tccatcagct ggtcacatgc
2160
caacacgttc ccagccccgt aggcagctcc aggggtgcccc acctgctcct gaggtgggtc
2220
cctaccctgc tgctcctctt catcctttcc cttttgtcct gaaagggagg agcaatggtc
2280
caggcattaa ttccaccag ggaatttttag ctatgccctc atgtccagg gagagagcca
2340
cagcctgtt ttccatttat agcaagattg ttgcatatc ttgtaatga aggggagtg
2400

ccagtggaag gattttttaa attatcttat ggatagctca agtctctgcc atttgaatt
 2460
 ttgggtctcta agctccgatt ggagacgctt ctccttggtc atgtgagttg actgatgttg
 2520
 tgagtgtaaa tgcatttggt tatttctggt atcgggtggc acttggatgg atttttttac
 2580
 attctgttcc ccagttacag gaaggagtc ctttggtgtg tgaatatgtg tgccgttaga
 2640
 ggggtggggca ggggtggggt gggatggaaa tgtgtggcat gcacatgagt tgaattctct
 2700
 ttatgcattt ttttgaagaa aaaaaaaaaa acaactctga ggacataggg gatgtcagtt
 2760
 tcctatggaa gagacacctc tgacccttta ttcttataat caaaatctga agggaaaaaaa
 2820
 atgttttagt tctttcccca ctctgtgggt tcaactagat taaaaggctg attttcagaa
 2880
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a
 2921

<210> 2708

<211> 337

<212> PRT

<213> Homo sapiens

<400> 2708

Xaa	Ala	Ser	Gly	Glu	Trp	Arg	Val	Ser	Gly	Gly	Arg	Pro	Ala	Gly	Ala
1				5					10					15	
Gly	Arg	Pro	Glu	Ala	Leu	Ala	Ala	Gly	Ser	Asp	Pro	Arg	Gly	Ala	
		20					25					30			
Ala	Ala	Arg	Leu	Ala	Cys	Ser	Ala	Pro	Thr	Pro	Gly	Gly	Thr	Met	
		35					40				45				
Pro	Phe	Asp	Phe	Arg	Arg	Phe	Asp	Ile	Tyr	Arg	Lys	Val	Pro	Lys	Asp
	50					55				60					
Leu	Thr	Gln	Pro	Thr	Tyr	Thr	Gly	Ala	Ile	Ile	Ser	Ile	Cys	Cys	Cys
65					70				75				80		
Leu	Phe	Ile	Leu	Phe	Leu	Phe	Leu	Ser	Glu	Leu	Thr	Gly	Phe	Ile	Thr
				85					90				95		
Thr	Glu	Val	Val	Asn	Glu	Leu	Tyr	Val	Asp	Asp	Pro	Asp	Lys	Asp	Ser
		100					105				110				
Gly	Gly	Lys	Ile	Asp	Val	Ser	Leu	Asn	Ile	Ser	Leu	Pro	Asn	Leu	His
		115					120				125				
Cys	Glu	Leu	Val	Gly	Leu	Asp	Ile	Gln	Asp	Glu	Met	Gly	Arg	His	Glu
		130				135					140				
Val	Gly	His	Ile	Asp	Asn	Ser	Met	Lys	Ile	Pro	Leu	Asn	Asn	Gly	Ala
145					150					155				160	
Gly	Cys	Arg	Phe	Glu	Gly	Gln	Phe	Ser	Ile	Asn	Lys	Val	Pro	Gly	Asn
			165						170					175	
Phe	His	Val	Ser	Thr	His	Ser	Ala	Thr	Ala	Gln	Pro	Gln	Asn	Pro	Asp
			180				185				190				
Met	Thr	His	Val	Ile	His	Lys	Leu	Ser	Phe	Gly	Asp	Thr	Leu	Gln	Val
		195					200				205				
Gln	Asn	Ile	His	Gly	Ala	Phe	Asn	Ala	Leu	Gly	Gly	Ala	Asp	Arg	Leu
210					215						220				
Thr	Ser	Asn	Pro	Leu	Ala	Ser	His	Asp	Tyr	Ile	Leu	Lys	Ile	Val	Pro

225		230		235		240									
Thr	Val	Tyr	Glu	Asp	Lys	Ser	Gly	Lys	Gln	Arg	Tyr	Ser	Tyr	Gln	Tyr
			245					250						255	
Thr	Val	Ala	Asn	Lys	Glu	Tyr	Val	Ala	Tyr	Ser	His	Thr	Gly	Arg	Ile
			260					265					270		
Ile	Pro	Ala	Ile	Trp	Phe	Arg	Tyr	Asp	Leu	Ser	Pro	Ile	Thr	Val	Lys
			275					280					285		
Tyr	Thr	Glu	Arg	Arg	Gln	Pro	Leu	Tyr	Arg	Phe	Ile	Thr	Thr	Ile	Cys
			290					295				300			
Ala	Ile	Ile	Gly	Gly	Thr	Phe	Thr	Val	Ala	Gly	Ile	Leu	Asp	Ser	Cys
			305					310			315			320	
Ile	Phe	Thr	Ala	Ser	Glu	Ala	Trp	Lys	Lys	Ile	Gln	Leu	Gly	Lys	Met
			325						330					335	

His

<210> 2709

<211> 984

<212> DNA

<213> Homo sapiens

<400> 2709

acgcgtgaag ggagcctagc tgaggctgat cacacagctc atgaagagat ggaagctcat
60
acgactgtga aagaagctga ggatgacaac atctcggtca caatccaggc tgaagatgcc
120
atcactctgg attttgatgg tgatgacctc ctataaacag gtaaaaatgt gaaaattaca
180
gattctgaag caagtaagcc aaaagatggg caggacgccca ttgcacagag cccggagaag
240
gaaagcaagg attatgagat gaatgcgaac cataaagatg gtaagaagga agactcgctg
300
aagggtgacc ctgtcgagaa ggaagccaga gaaagtctta agaaagcaga atctggagac
360
aaagaaaagg atactttgaa gaaagggccc tcgtctactg gggcctctgg tcaagcaaa
420
agctcttcaa aggaatctaa agacagcaag acatcatctc aagatgacaa aggaagtaca
480
agtactacta gtggtagcag tggaaagctca actaaaaata tctggggttag tggactttca
540
tctaatacca aagctgctga tttgaagaac ctctttggca aatatggaaa ggttctgagt
600
gcaaaagtag ttacaaatgc tcgaagtctt ggggcaaaat gctatggcat tgtaactatg
660
tcttcaagca cagaggtgtc cagggtgtatt gcacatcttc atcgactga gctgcatgga
720
cagctgattt ctgttgaaaa agtaaaaggt gatccctcta agaaagaaat gaagaaagaa
780
aatgatgaaa agagtgttcc aagaagtctt ggagataaaa aaaatacgag tgatgaaagt
840
agcaagacac aagcctctgt caaaaaagaa gagaaaagat cgtctgagaa atctgaaaaa
900
aaagaaagca aggatactaa gaaaatagaa ggtaaagatg agaagaatga taatggagca
960

agtggtccaaa catcagaatc gatt
984

<210> 2710

<211> 242

<212> PRT

<213> Homo sapiens

<400> 2710

```
Met Asn Ala Asn His Lys Asp Gly Lys Lys Glu Asp Cys Val Lys Gly
 1             5             10             15
Asp Pro Val Glu Lys Glu Ala Arg Glu Ser Ser Lys Lys Ala Glu Ser
      20             25             30
Gly Asp Lys Glu Lys Asp Thr Leu Lys Lys Gly Pro Ser Ser Thr Gly
 35             40             45
Ala Ser Gly Gln Ala Lys Ser Ser Ser Lys Glu Ser Lys Asp Ser Lys
 50             55             60
Thr Ser Ser Lys Asp Asp Lys Gly Ser Thr Ser Ser Thr Ser Gly Ser
 65             70             75             80
Ser Gly Ser Ser Thr Lys Asn Ile Trp Val Ser Gly Leu Ser Ser Asn
      85             90             95
Thr Lys Ala Ala Asp Leu Lys Asn Leu Phe Gly Lys Tyr Gly Lys Val
      100            105            110
Leu Ser Ala Lys Val Val Thr Asn Ala Arg Ser Pro Gly Ala Lys Cys
      115            120            125
Tyr Gly Ile Val Thr Met Ser Ser Ser Thr Glu Val Ser Arg Cys Ile
      130            135            140
Ala His Leu His Arg Thr Glu Leu His Gly Gln Leu Ile Ser Val Glu
      145            150            155            160
Lys Val Lys Gly Asp Pro Ser Lys Lys Glu Met Lys Lys Glu Asn Asp
      165            170            175
Glu Lys Ser Ser Ser Arg Ser Ser Gly Asp Lys Lys Asn Thr Ser Asp
      180            185            190
Arg Ser Ser Lys Thr Gln Ala Ser Val Lys Lys Glu Glu Lys Arg Ser
      195            200            205
Ser Glu Lys Ser Glu Lys Lys Glu Ser Lys Asp Thr Lys Lys Ile Glu
      210            215            220
Gly Lys Asp Glu Lys Asn Asp Asn Gly Ala Ser Gly Gln Thr Ser Glu
      225            230            235            240
Ser Ile
```

<210> 2711

<211> 6536

<212> DNA

<213> Homo sapiens

<400> 2711

```
ttgttttaga aagctctttt attttcagtt ctggctgtgt tcaacatctt agcttacggt
 60
tttcattgtt taatgatctg ccgtacggac gatcacctct aagtttagaga gttctgtaat
 120
ttggcttgga ttaaatgatgc ttggttagtg aaagctgctg ctttttttat agtcaaagga
 180
```

ctggttctga gagccttggt gcagatggct gaggtcacgc tcccaagggt gtagtgcgtg
240
tttggcatcc attgcatcat ggcgaaggca tcttcagatg tgcagggttc aggcctttcat
300
cggaataatcc agcacgttaa aaatgaactt tgccacatgt tgagcttgga ggaggtggcc
360
ccagtgtctgc agcagacatt acttcaggac aacctcttgg gcagggtaca ttttgaccaa
420
tttaaagaag cattaatact catcttgtcc agaactctgt cagatgaaga acacttccaa
480
gaaccagact gctcactaga agctcagccc agatatgtta gaggtgagaa gccttacgga
540
cgaaggctct tgcccagagt ccaagagtcc gtggaggagt tcctgaggt gacggtgatt
600
gagccctctg atgaagaagc gcggccttca cacatcccag ccggtgactg cagtgcagac
660
tggaagacgc aacgcagtga ggagtatgaa gcggaaggcc agttaaggt ttggaaccca
720
gatgacttga atgcttcaca gagggtatct tccccctccc aagactggat agaagagaaa
780
ctgcaacaag tttgtgaaga ttggggatc acccctgatg gtcacctgaa ccggaagaag
840
ctgggtttcca tctgtgagca gtatgggttg cagaatgttg atggagagat gctcaggaaa
900
gtattccata atcttgatcc tgacggtaca atgagttag aagatttttt ctatgggttg
960
tttaaaaatg gaaaatctct tacaccatca gcatctactc catatagaca actaaaagg
1020
cacctttcca tgcagctctt cgatgagagt ggacgacgta ccacaacctc atcagcaacg
1080
acaagtacca ttggctttcg ggtcttctcc tgccctggat atgggatggg ccatgcatct
1140
gtggagagga tactcgacac ctggcaggaa gagggcattg agaacagcca ggagatcctg
1200
aaggccttgg atttcagcct cgatggaaac atcaatttga cagaattaac actggcctt
1260
gaaaaatgaa ttttggttac caagaacagc attcaccagg cggtctctggc cagctttaag
1320
gctgaaatcc ggcatttgtt ggaacgagtc gatcaggttg tcagagaaaa gagaagctac
1380
ggtcggatct ggacagccga gaagctcaag tctttaatgg cctcggagggt ggatgatcac
1440
gatgcggcca tagagcggcg gaatgagtac aacctcagga aactggatga agagtacaag
1500
gagcgaatag cagccttaaa aaatgaactc cyaaaagaga gagagcagat cctgcagcag
1560
gcaggcaagc agcgtttaga acttgaacag gaaattgaaa aggcataaac agaagagaac
1620
tatatccggg accgccttgc cctctcttta aagaaaaca gtcgtctgga aaatgagctt
1680
ctagaaaatg cagagaagtt ggcagaatat gagaatctga caaacaactc tcagagaaat
1740
ttggaataat gtgttagcaga aaagtttggg gacctcgatc ctacgagtcg tgagttcttc
1800

ctgcaagaag agagactgac acagatgaga aatgaatatg agcggcagtg caggggtacta
1860
caagaccaag tagatgaact ccagctctgag ctggaagaat atcgtgcaca aggcagagtg
1920
ctcaggcttc cgttgaagaa ctcaccgtca gaagaagttg aggctaacag cggtaggcatt
1980
gagccccgaac acggggtcgg ttctgaagaa tgcaatccat tgaatatgag cattgaggca
2040
gagctggtca ttgaacagat gaaagaacaa catcacaggg acatatgttg cctcagactg
2100
gagctcgaag ataaagtgcg ccattatgaa aagcagctgg acgaaaccgt ggtcagctgc
2160
aagaaggcac aggagaacat gaagcaaagg catgagaacg aaacgcacac cttagaagaa
2220
caaataagtg accttaaaat gaaaattgct gaacttcagg ggcaagcagc agtgctcaag
2280
gaggcacatc atgaggccac ttgcaggcat gaggaggaga aaaaacaact gcaagtgaag
2340
cttgaggagg aaaagactca cctgcaggag aagctgaggc tgcaacatga gatggagctc
2400
aaggctagac tgacacaggc tcaagcaagc ttggggcggg agaggsaagg ccttcagagt
2460
agcgcttgga cagaagagaa ggtgagaggc ttgactcagg aactagagca gtttcaccag
2520
gagcagctga caagcctggt ggagaacat actcttgaga aagaggagtt aagaaaagag
2580
ctcttggaag agcaccaaa ggagcttcag gagggaaggg aaaaatgga aacagagtgt
2640
aatagaagaa cctctcaaat agaagccag tttagctctg attgtcagaa agtcaactgag
2700
aggtgtgaaa gcgctctgca aagcctggag gggcgctacc gccaaagagct gaaggacctc
2760
caggaacagc agcgtgagga gaaatcccag tgggaatttg agaaggacga gctcacccag
2820
gagtgctgag aagcacagga gctgctgaaa gagactctta agagagagaa aacaacttct
2880
ctggctctga ccagggagag agagatgctg gagaaaacat acaaagacca ttgaaacagc
2940
atggctgctg agagacagca gctactccaa gacctggaag acctaagaaa tgtatctgaa
3000
accagcaaaa gcctgctgct tgaccagata cttgagctga agagcagtc aaaaaggga
3060
ctgagggagc gtgaggaggt cctgtgccag cagggggctc cgagcagct ggccagccag
3120
cggctggaag gactagaaat ggaacatgac caggaaaggc aggaatgat gtccaagctt
3180
ctagccatgg agaacattca caaagcgacc tgtgagacag cagatcgaga aagagccgag
3240
atgagcacag aaatctccag acttcagagt aaaataaagg aatgagca ggcaacatct
3300
cctctctcta tgcttcagag tggttgccag gtgataggag aggaggaggt ggaaggagat
3360
ggagccctgt cctcgcttca gaaaggggag cagctgttgg aagaaaatgg ggacgtcctc
3420

ttaagcctgc agagagctca tgaacaggca gtgaaggaaa atgtgaaaat ggctactgaa
3480
atttcttagat tgcaacagag gctacaaaag ttagagccag ggtagtaaat gtctctctgt
3540
ttggatgagc cagctactga gtttttttga aatactgcgg aacaaacaga gccgttttta
3600
cagcaaaacc gaacgaagca agtagaaggt gtgaccaggc ggcatgtcct aagtgaacct
3660
gaagatgatg aggtccggga cctgggaagt acagggacga gctctgttca gagacaggaa
3720
gtcaaaatag aggagctctga agcttcagta gaggggtttt ccgagcttga aaacagttaa
3780
gagaccagga ctgaatcctg ggagctgaaa aatcacatta gtctgcttca ggaacagctc
3840
atgatgtttt gtgcggactg tgatctagct tctgaaaaa aacaggagct actttttgat
3900
gtttctgtgc tcaaaaagaa actgaaaatc cttgagagaa tccctgaggc ttctcccaga
3960
tataagctgt tgtatgaaga tgtgagccga gaaaatgact gccttcagga agagctggag
4020
atgatggaga cacgctacga tgaggcacta gaaaaataca aagaactcac tgcagagggt
4080
ttcaggttgc aggatgagct gaagaaaatg gaggaagta ctgaacatt cctcagcctg
4140
gaaaagagtt acgatgaggt caaaatagaa aatgaggagc tgaatgttct gggtttgaga
4200
cttcaaggca agattgagaa gcttmnccag agagcgtggg caagcgtgtg gactgctgct
4260
tatgggaagn cgagttttaga gaacctggaa atcgaaacct atggaaatat actccagctc
4320
aatcagacac tgggaagagtg tgtgccagg gttaggagtg tacatcatgt catagaggaa
4380
tgtcaagcaag aaaaccagta ccttgagggg aacacacagc tcttggaata agtaaaagca
4440
catgaaattg cctggttaca tggacaatt cagacacatc aagaaaggcc aagagtacag
4500
aatcaagtta tactggagga aaacactact ctcttaggct ttcaagacaa acattttcag
4560
catcaggcca ccatagcaga gttagaactg gagaaaaaa agttacagga gctgactagg
4620
aagttgaagg agagagctcc tatttttagt aagcaaaaa atgtacttct tcccgaaaa
4680
aagggaag aactgaaggc aatgatgcac gacttgcaaa tcccttgag tgagatgcag
4740
caaaagggtg aacttttgaa atatgaatct gaaaagcttc aacaggaaaa ttctattttg
4800
agaaatgaaa ttactacttt aaatgaagaa gatagcattt ctaacctgaa attagggaca
4860
ttaaattgat cttaggaaga aatgtggcaa aaacggaat ctgtaaaaca agaaatgct
4920
gcagttctga agatgggtta aaatttaaag aaacagattt cagaattaaa aatcaaaaac
4980
caacaattgg atttggaata tacagaactt agccaaaaga actctccaaa ccaggaaaaa
5040

ctgcaagaac ttaatcaact gctaacagaa atgctatgcc agaaggaaaa agagccagga
 5100
 aaacagtgcac tggaggaacg ggaacaagag aagtttaate tgaaagaaga accggaacgt
 5160
 tgtaaaagtgc agtcctccac tttagtgtct tctctggagg cggagctctc tgaagttaaa
 5220
 atacagaccc atattgtgca acaggaaaac ccccttctcc aagatgaact ggagaaaatg
 5280
 aaacagctgc acagatgtcc cgatctctcg aacttccagc aaaaaatctc tagtgttcta
 5340
 agctacaacg aaaaactgct gaaagaaaag gaagctctga gtgaggaatt aaatagctgt
 5400
 gtcgataagt tggcaaaatc aagtctttta gagcatagaa ttgcgacgat gaagcaggaa
 5460
 cagaaatcct ggggaacatca gagtgcgagc ttaaagacac agctgggtggc ttctcaggaa
 5520
 aagggttcaga atttagaaga caccgtgcag aatgtaaac tgcaaatgtc ccggatgaaa
 5580
 tctgacccac gagtgaactca gcaggaaaag gaggctttta aacaagaagt gatgccttta
 5640
 cataagcaac ttcagaattc tgtgngcaag agctgggccc cagagatagc tactcatcca
 5700
 tcagggtctcc ataaccagca gaaaaggctg tectgggaca agttggatca tctgatgaat
 5760
 gaggaacagc agctgctttg gcaagagaat gagaggctcc agaccatggt acagaacacc
 5820
 aaagcgaac tcacgcactc ccgggagaag gtccgtcaat tggaatccaa tcttctctcc
 5880
 aagcaccaaa aacatctaaa cccatcaggt accatgaat ccacagagca agaaaaattg
 5940
 agcttaaaaga gagagtgtga tcagtttcag aaagaacaat ctctgctaa caggaaggct
 6000
 agtcagatga attcctctga acaagaatta gaaacaattc atttggaaaa tgaaggcctg
 6060
 aaaaagaaac aagtaaaact ggatgagcag ctcattggaga tgcagcacct gaggtccact
 6120
 gcgacgccta gcccgctccc tcattgcttg gatttgagca tgctccagca gcaagcctgt
 6180
 ccgatggtgc ccaggaggca gtttctgcag cttcaacgac agctgctgca ggcagaaagg
 6240
 ataaaccagc acctgcagga ggaacttgaa aacaggacct ccgaaacca caccaccag
 6300
 ggaaaccagg aacaactggt aactgtcatg gaggaacgaa tgatagaagt tgaacagaaa
 6360
 ctgaaactag tgaagggtc tcttcaagag aaagtgaatc agctcaaaga acaagtgagc
 6420
 ctaccgggtc atctctgttc acccaccctca cattccagct ttaactccag tttttacatc
 6480
 ctttattgcc attaactcgt taacttatgt tgtctaataa aggcaaatc tattat
 6536

<210> 2712

<211> 2096

<212> PRT

<213> Homo sapiens

<400> 2712

```

Met Ala Glu Val Thr Val Pro Arg Val Tyr Val Val Phe Gly Ile His
 1          5          10          15
Cys Ile Met Ala Lys Ala Ser Ser Asp Val Gln Val Ser Gly Phe His
 20          25          30
Arg Lys Ile Gln His Val Lys Asn Glu Leu Cys His Met Leu Ser Leu
 35          40          45
Glu Glu Val Ala Pro Val Leu Gln Gln Thr Leu Leu Gln Asp Asn Leu
 50          55          60
Leu Gly Arg Val His Phe Asp Gln Phe Lys Glu Ala Leu Ile Leu Ile
 65          70          75          80
Leu Ser Arg Thr Leu Ser Asp Glu Glu His Phe Gln Glu Pro Asp Cys
 85          90          95
Ser Leu Glu Ala Gln Pro Arg Tyr Val Arg Gly Glu Lys Pro Tyr Gly
100          105          110
Arg Arg Ser Leu Pro Glu Phe Gln Glu Ser Val Glu Glu Phe Pro Glu
115          120          125
Val Thr Val Ile Glu Pro Leu Asp Glu Glu Ala Arg Pro Ser His Ile
130          135          140
Pro Ala Gly Asp Cys Ser Glu His Trp Lys Thr Gln Arg Ser Glu Glu
145          150          155          160
Tyr Glu Ala Glu Gly Gln Leu Arg Phe Trp Asn Pro Asp Asp Leu Asn
165          170          175          180
Ala Ser Gln Ser Gly Ser Ser Pro Pro Gln Asp Trp Ile Glu Glu Lys
185          190          195
Leu Gln Gln Val Cys Glu Asp Leu Gly Ile Thr Pro Asp Gly His Leu
200          205          210
Asn Arg Lys Lys Leu Val Ser Ile Cys Glu Gln Tyr Gly Leu Gln Asn
215          220          225
Val Asp Gly Glu Met Leu Glu Glu Val Phe His Asn Leu Asp Pro Asp
230          235          240
Gly Thr Met Ser Val Glu Asp Phe Phe Tyr Gly Leu Phe Lys Asn Gly
245          250          255
Lys Ser Leu Thr Pro Ser Ala Ser Thr Pro Tyr Arg Gln Leu Lys Arg
260          265          270
His Leu Ser Met Gln Ser Phe Asp Glu Ser Gly Arg Arg Thr Thr Thr
275          280          285
Ser Ser Ala Thr Thr Ser Thr Ile Gly Phe Arg Val Phe Ser Cys Leu
290          295          300
Asp Asp Gly Met Gly His Ala Ser Val Glu Arg Ile Leu Asp Thr Trp
305          310          315          320
Gln Glu Glu Gly Ile Glu Asn Ser Gln Glu Ile Leu Lys Ala Leu Asp
325          330          335
Phe Ser Leu Asp Gly Asn Ile Asn Leu Thr Glu Leu Thr Leu Ala Leu
340          345          350
Glu Asn Glu Leu Leu Val Thr Lys Asn Ser Ile His Gln Ala Ala Leu
355          360          365
Ala Ser Phe Lys Ala Glu Ile Arg His Leu Leu Glu Arg Val Asp Gln
370          375          380
Val Val Arg Glu Lys Arg Ser Tyr Gly Arg Ile Trp Thr Ala Glu Lys
385          390          395          400
Leu Lys Ser Leu Met Ala Ser Glu Val Asp Asp His Asp Ala Ala Ile

```

[illegible]

835	840	845
Leu Lys Asp Leu Gln Glu	Gln Gln Arg Glu Glu Lys	Ser Gln Trp Glu
850	855	860
Phe Glu Lys Asp Glu Leu Thr	Gln Glu Cys Ala Glu Ala Gln	Glu Leu
870	875	880
Leu Lys Glu Thr Leu Lys Arg	Glu Lys Thr Thr Ser Leu Val	Leu Thr
885	890	895
Gln Glu Arg Glu Met Leu Glu Lys Thr	Tyr Lys Asp His Leu Asn Ser	
900	905	910
Met Val Val Glu Arg Gln Gln Leu Leu	Gln Asp Leu Glu Asp Leu Arg	
915	920	925
Asn Val Ser Glu Thr Gln Gln Ser Leu Leu	Ser Asp Gln Ile Leu Glu	
930	935	940
Leu Lys Ser Ser His Lys Arg Glu Leu Arg	Glu Arg Glu Glu Val Leu	
945	950	955
Cys Gln Gln Gly Val Ser Glu Gln Leu Ala	Ser Gln Arg Leu Glu Arg	
965	970	975
Leu Glu Met Glu His Asp Gln Glu Arg Gln	Glu Met Met Ser Lys Leu	
980	985	990
Leu Ala Met Glu Asn Ile His Lys Ala Thr	Cys Glu Thr Ala Asp Arg	
995	1000	1005
Glu Arg Ala Glu Met Ser Thr Glu Ile Ser	Arg Leu Gln Ser Lys Ile	
1010	1015	1020
Lys Glu Met Gln Gln Ala Thr Ser Pro Leu	Ser Met Leu Gln Ser Gly	
1025	1030	1035
Cys Gln Val Ile Gly Glu Glu Val Glu Gly	Asp Gly Ala Leu Ser	
1045	1050	1055
Leu Leu Gln Lys Gly Glu Gln Leu Leu Glu	Asn Gly Asp Val Leu	
1060	1065	1070
Leu Ser Leu Gln Arg Ala His Glu Gln Ala	Val Lys Glu Asn Val Lys	
1075	1080	1085
Met Ala Thr Glu Ile Ser Arg Leu Gln Gln	Arg Leu Gln Lys Leu Glu	
1090	1095	1100
Pro Gly Leu Val Met Ser Ser Cys Leu Asp	Glu Pro Ala Thr Glu Phe	
1105	1110	1115
Phe Gly Asn Thr Ala Glu Gln Thr Glu Pro	Phe Leu Gln Gln Asn Arg	
1125	1130	1135
Thr Lys Gln Val Glu Gly Val Thr Arg Arg	His Val Leu Ser Asp Leu	
1140	1145	1150
Glu Asp Asp Glu Val Arg Asp Leu Gly Ser	Thr Gly Thr Ser Ser Val	
1155	1160	1165
Gln Arg Gln Glu Val Lys Ile Glu Glu Ser	Glu Ala Ser Val Glu Gly	
1170	1175	1180
Phe Ser Glu Leu Glu Asn Ser Glu Glu Thr	Arg Thr Glu Ser Trp Glu	
1185	1190	1195
Leu Lys Asn His Ile Ser Leu Leu Gln Glu	Gln Leu Met Met Phe Cys	
1205	1210	1215
Ala Asp Cys Asp Leu Ala Ser Glu Lys Lys	Gln Glu Leu Leu Phe Asp	
1220	1225	1230
Val Ser Val Leu Lys Lys Lys Leu Lys Ile	Leu Glu Arg Ile Pro Glu	
1235	1240	1245
Ala Ser Pro Arg Tyr Lys Leu Leu Tyr Glu	Asp Val Ser Arg Glu Asn	
1250	1255	1260
Asp Cys Leu Gln Glu Glu Leu Glu Met Met	Glu Thr Arg Tyr Asp Glu	

1265 1270 1275 1280
 Ala Leu Glu Asn Asn Lys Glu Leu Thr Ala Glu Val Phe Arg Leu Gln
 1285 1290 1295
 Asp Glu Leu Lys Lys Met Glu Glu Val Thr Glu Thr Phe Leu Ser Leu
 1300 1305 1310
 Glu Lys Ser Tyr Asp Glu Val Lys Ile Glu Asn Glu Glu Leu Asn Val
 1315 1320 1325
 Leu Val Leu Arg Leu Gln Gly Lys Ile Glu Lys Leu Xaa Thr Arg Ala
 1330 1335 1340
 Trp Ser Ser Gly Val Thr Ala Ala Tyr Gly Lys Xaa Ser Leu Glu Asn
 1345 1350 1355 1360
 Leu Glu Ile Glu Pro Asp Gly Asn Ile Leu Gln Leu Asn Gln Thr Leu
 1365 1370 1375
 Glu Glu Cys Val Pro Arg Val Arg Ser Val His His Val Ile Glu Glu
 1380 1385 1390
 Cys Lys Gln Glu Asn Gln Tyr Leu Glu Gly Asn Thr Gln Leu Leu Glu
 1395 1400 1405
 Lys Val Lys Ala His Glu Ile Ala Trp Leu His Gly Thr Ile Gln Thr
 1410 1415 1420
 His Gln Glu Arg Pro Arg Val Gln Asn Gln Val Ile Leu Glu Glu Asn
 1425 1430 1435 1440
 Thr Thr Leu Leu Gly Phe Gln Asp Lys His Phe Gln His Gln Ala Thr
 1445 1450 1455
 Ile Ala Glu Leu Glu Leu Glu Lys Thr Lys Leu Gln Glu Leu Thr Arg
 1460 1465 1470
 Lys Leu Lys Glu Arg Val Pro Ile Leu Val Lys Gln Lys Asp Val Leu
 1475 1480 1485
 Ser Pro Gly Lys Lys Glu Glu Glu Leu Lys Ala Met Met His Asp Leu
 1490 1495 1500
 Gln Ile Pro Cys Ser Glu Met Gln Gln Lys Val Glu Leu Leu Lys Tyr
 1505 1510 1515 1520
 Glu Ser Glu Lys Leu Gln Gln Glu Asn Ser Ile Leu Arg Asn Glu Ile
 1525 1530 1535
 Thr Thr Leu Asn Glu Glu Asp Ser Ile Ser Asn Leu Lys Leu Gly Thr
 1540 1545 1550
 Leu Asn Gly Ser Gln Glu Glu Met Trp Gln Lys Thr Glu Ser Val Lys
 1555 1560 1565
 Gln Glu Asn Ala Ala Val Leu Lys Met Val Glu Asn Leu Lys Lys Gln
 1570 1575 1580
 Ile Ser Glu Leu Lys Ile Lys Asn Gln Gln Leu Asp Leu Glu Asn Thr
 1585 1590 1595 1600
 Glu Leu Ser Gln Lys Asn Ser Pro Asn Gln Glu Lys Leu Gln Glu Leu
 1605 1610 1615
 Asn Gln Leu Leu Thr Glu Met Leu Cys Gln Lys Glu Lys Glu Pro Gly
 1620 1625 1630
 Asn Ser Ala Leu Glu Glu Arg Glu Gln Glu Lys Phe Asn Leu Lys Glu
 1635 1640 1645
 Glu Pro Glu Arg Cys Lys Val Gln Ser Ser Thr Leu Val Ser Ser Leu
 1650 1655 1660
 Glu Ala Glu Leu Ser Glu Val Lys Ile Gln Thr His Ile Val Gln Gln
 1665 1670 1675 1680
 Glu Asn Pro Leu Leu Gln Asp Glu Leu Glu Lys Met Lys Gln Leu His
 1685 1690 1695
 Arg Cys Pro Asp Leu Ser Asn Phe Gln Gln Lys Ile Ser Ser Val Leu

	1700		1705		1710
Ser Tyr Asn Glu Lys Leu Leu Lys Glu Lys Glu Ala Leu Ser Glu Glu	1715		1720		1725
Leu Asn Ser Cys Val Asp Lys Leu Ala Lys Ser Ser Leu Leu Glu His	1730		1735		1740
Arg Ile Ala Thr Met Lys Gln Glu Gln Lys Ser Trp Glu His Gln Ser	1745		1750		1755
Ala Ser Leu Lys Thr Gln Leu Val Ala Ser Gln Glu Lys Val Gln Asn	1765		1770		1775
Leu Glu Asp Thr Val Gln Asn Val Asn Leu Gln Met Ser Arg Met Lys	1780		1785		1790
Ser Asp Pro Arg Val Thr Gln Gln Glu Lys Glu Ala Leu Lys Gln Glu	1795		1800		1805
Val Met Pro Leu His Lys Gln Leu Gln Asn Ser Val Xaa Lys Ser Trp	1810		1815		1820
Ala Pro Glu Ile Ala Thr His Pro Ser Gly Leu His Asn Gln Gln Lys	1825		1830		1835
Arg Leu Ser Trp Asp Lys Leu Asp His Leu Met Asn Glu Glu Gln Gln	1845		1850		1855
Leu Leu Trp Gln Glu Asn Glu Arg Leu Gln Thr Met Val Gln Asn Thr	1860		1865		1870
Lys Ala Glu Leu Thr His Ser Arg Glu Lys Val Arg Gln Leu Glu Ser	1875		1880		1885
Asn Leu Leu Pro Lys His Gln Lys His Leu Asn Pro Ser Gly Thr Met	1890		1895		1900
Asn Pro Thr Glu Gln Glu Lys Leu Ser Leu Lys Arg Glu Cys Asp Gln	1905		1910		1915
Phe Gln Lys Glu Gln Ser Pro Ala Asn Arg Lys Val Ser Gln Met Asn	1925		1930		1935
Ser Leu Glu Gln Glu Leu Glu Thr Ile His Leu Glu Asn Glu Gly Leu	1940		1945		1950
Lys Lys Lys Gln Val Lys Leu Asp Glu Gln Leu Met Glu Met Gln His	1955		1960		1965
Leu Arg Ser Thr Ala Thr Pro Ser Pro Ser Pro His Ala Trp Asp Leu	1970		1975		1980
Gln Leu Leu Gln Gln Gln Ala Cys Pro Met Val Pro Arg Glu Gln Phe	1985		1990		1995
Leu Gln Leu Gln Arg Gln Leu Leu Gln Ala Glu Arg Ile Asn Gln His	2005		2010		2015
Leu Gln Glu Glu Leu Glu Asn Arg Thr Ser Glu Thr Asn Thr Pro Gln	2020		2025		2030
Gly Asn Gln Glu Gln Leu Val Thr Val Met Glu Glu Arg Met Ile Glu	2035		2040		2045
Val Glu Gln Lys Leu Lys Leu Val Lys Arg Leu Leu Gln Glu Lys Val	2050		2055		2060
Asn Gln Leu Lys Glu Gln Val Ser Leu Pro Gly His Leu Cys Ser Pro	2065		2070		2075
Thr Ser His Ser Ser Phe Asn Ser Ser Phe Thr Ser Leu Tyr Cys His	2085		2090		2095

<210> 2713

<211> 2066

<212> DNA

<213> Homo sapiens

<400> 2713
ngcgctgggg cagccggggc agccggggca gcccggtcac ccgccccca ggccccacat
60
aagggtgtcc gcggcctgac ctccaggcgg agggagcccg actgcggaag gatggagctg
120
gccgcgggaa gcttctcgga ggagcagttc tgggaggcct gcgccgagct ccagcagccc
180
gctctggccg gggccgactg gcagctccta tgggagacct cgggcatcag catctaccgg
240
ctgctggaca agaagactgg actttatgag tataaagtct ttggtgttct ggaggactgc
300
tcaccaactc tactggcaga catctatatg gactcagatt acagaaaaca atgggaccag
360
tatgttaaag aactctatga acaagaatgc aacggagaga ctgtgggtcta ctgggaagtg
420
aagtaccctt ttcccatgtc caacagagac tatgtctacc ttcggcagcg gcgagacctg
480
gacctggaag ggaggaagat ccatgtgatc ctggcccgga gcacctccat gctcagctt
540
ggcgagaggt ctgggggtgat ccgggtgaag caatacaagc agagcctggc gattgagagt
600
gacggcaaga agggggagcaa agttttcatg tattacttgc ataaccgggg tggccaaatt
660
cgtctctggc tcaattaactg ggccgccaaag aatggagttc ctaacttctt gaaagacatg
720
gcaagagcct gtcagaacta cctcaagaaa acctaaagaaa gagaactggg aacattgcat
780
ccatgggttg atgtctcttg aagtgcaccc acccaatgtc tctggaagtg ccacctggaa
840
gtgccacctg gaagtgtctc tggaagagca cccaccactg ttcagccttc cctctgtgtt
900
ctgtcttcca gaggcctaca cactaccaca tcttttctaa gcatgtttgc ctgacatcca
960
gctcactcgt ctgtctcctt tctcgtctcc ccatctctgg gctgggctgc cttctcttac
1020
agtccaatat ggggcagact agggaaacct ttgcttgctt actattagga ggggaagtct
1080
tcagttagga acacgatcat tccattgtgc aattttacgg ggaagggtgg gcggagggac
1140
acaacaaaat ttaagaatga ctatttgggc gggctggctt ttttgcagct tgtgatttct
1200
tccagcttgg gaggggctgc tggaagtggc atttcgttca gagctgactt tcaagtgcacc
1260
caaatggat gacgtgccaa tgtccatttg ccttatgctt tgtggagctg attagctgg
1320
gatttgaggt gataatccag taagtcttct ctgcttctca cttgtggagg atcagtagct
1380
gttatgatgc cagaccattt ggagaagtat cagaggcctg accggacaca taatacgaca
1440
accacatttt tctctatcat ccatgaggaa atggatgatt tctcttttcc atatgtcact
1500
gggggaaagg ctgcctgtac ctctcaagct ttgcatttta ctggaaaactg aggcgtcaag
1560

atggctgtgg cagctagcaa aagcaaagat gctttgtgca tagccttggg aaaaagtatc
 1620
 ttcttatgca ataagatgaa ttttctctcc agaatattta gaaatgtaga agggataaca
 1680
 gttcacagcc aggtaaaatt taactgggtg cttaatgact ctgcaccttt ttctcaggaa
 1740
 ttctgcctaa gttgtctgcc ttttctacca ccaaaaagac ttttagtttt ctatgctttc
 1800
 tcttgaattt tggtagggtg aggtatttct atgtcaaagg cacagccttg atgatctcag
 1860
 ggaaaaattt taatcactgt gtataatgat actgaacctt gattaataac agaaattcag
 1920
 gatgtaaagc cacagaatgg gatttattaa tgtgggatac ctcagactgt ttgttttctt
 1980
 tctgggaaga aaagtgtgtt ctataatgaa taaatataga gtggttttta aaaaaaaaaa
 2040
 aaaaaaaaaa aaaaaaaaaa aaaaaa
 2066

<210> 2714

<211> 214

<212> PRT

<213> Homo sapiens

<400> 2714

Met Glu Leu Ala Ala Gly Ser Phe Ser Glu Glu Gln Phe Trp Glu Ala
 1 5 10 15
 Cys Ala Glu Leu Gln Gln Pro Ala Leu Ala Gly Ala Asp Trp Gln Leu
 20 25 30
 Leu Val Glu Thr Ser Gly Ile Ser Ile Tyr Arg Leu Leu Asp Lys Lys
 35 40 45
 Thr Gly Leu Tyr Glu Tyr Lys Val Phe Gly Val Leu Glu Asp Cys Ser
 50 55 60
 Pro Thr Leu Leu Ala Asp Ile Tyr Met Asp Ser Asp Tyr Arg Lys Gln
 65 70 75 80
 Trp Asp Gln Tyr Val Lys Glu Leu Tyr Glu Gln Glu Cys Asn Gly Glu
 85 90 95
 Thr Val Val Tyr Trp Glu Val Lys Tyr Pro Phe Pro Met Ser Asn Arg
 100 105 110
 Asp Tyr Val Tyr Leu Arg Gln Arg Asp Leu Asp Met Glu Gly Arg
 115 120 125
 Lys Ile His Val Ile Leu Ala Arg Ser Thr Ser Met Pro Gln Leu Gly
 130 135 140
 Glu Arg Ser Gly Val Ile Arg Val Lys Gln Tyr Lys Gln Ser Leu Ala
 145 150 155 160
 Ile Glu Ser Asp Gly Lys Lys Gly Ser Lys Val Phe Met Tyr Tyr Phe
 165 170 175
 Asp Asn Pro Gly Gly Gln Ile Pro Ser Trp Leu Ile Asn Trp Ala Ala
 180 185 190
 Lys Asn Gly Val Pro Asn Phe Leu Lys Asp Met Ala Arg Ala Cys Gln
 195 200 205
 Asn Tyr Leu Lys Lys Thr
 210

<210> 2715
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 2715
 atccaccatg tgaagaggca gacaggcatt cagaaggagg acaaatataa gataaaacaa
 60
 atcatgcac attttattcc agatttgctc ttgcccacaa gaggtgatct ctcagatgtg
 120
 gaggaagagg aagaagaaga gatggatga gatgaagcca caggggcagt taagaagcac
 180
 aatgggtgtg gaggcagtc ccctaagtcc aagttactgt ttagtaacac agcagctcaa
 240
 aaattaagag gaatggatga agtatacaac ctcttctatg tcaacaacaa ctggatatatt
 300
 tttatgcgac tgcaccagat tctctgcctg aggtctgtac ggatttgttc ccaagccgaa
 360
 cggcaaattg aagaagaa
 378

<210> 2716
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 2716
 Ile His His Val Lys Arg Gln Thr Gly Ile Gln Lys Glu Asp Lys Tyr
 1 5 10
 Lys Ile Lys Gln Ile Met His His Phe Ile Pro Asp Leu Leu Phe Ala
 20 25 30
 Gln Arg Gly Asp Leu Ser Asp Val Glu Glu Glu Glu Glu Met
 35 40 45
 Asp Val Asp Glu Ala Thr Gly Ala Val Lys Lys His Asn Gly Val Gly
 50 55 60
 Gly Ser Pro Pro Lys Ser Lys Leu Leu Phe Ser Asn Thr Ala Ala Gln
 65 70 75 80
 Lys Leu Arg Gly Met Asp Glu Val Tyr Asn Leu Phe Tyr Val Asn Asn
 85 90 95
 Asn Trp Tyr Ile Phe Met Arg Leu His Gln Ile Leu Cys Leu Arg Leu
 100 105 110
 Leu Arg Ile Cys Ser Gln Ala Glu Arg Gln Ile Glu Glu Glu
 115 120 125

<210> 2717
 <211> 2076
 <212> DNA
 <213> Homo sapiens

<400> 2717
 tttttttttt tttttttttt ccttacacgt ccatttatta aacaagttcc ttcatgacaa
 60
 ttttaatacaa tagttattaa cgattagtgt tgagaaaaatt atttcctct acatacaaaa
 120

atacagattt gaacactatg aaaaagatca agacaagtac catgaaaaac tggtccttca
180
aatgaaaagg ggaataattga gggcaatgtg aggcctttgc tgcgtcggg gacaaatcaa
240
tagcagcaaa gctttggggc cccaacccac tccatacata cagacttgaa cccaaaagcc
300
aggccagcca ggggacgccc acccagggct tccacgtcag ctgaaaaacc aaacacataa
360
acctaagttt gcccaacggg catgcctcca gaaagccac agttgtgtct ttaaactgcc
420
gaaatgaaag agacttgatg agtaaaatgt gatagtgtt aaacttggcc cccaaaagtg
480
ccaccagggt aagtaccacg gagaatcat attggaaagt tactacttag ccatctgact
540
tgacttcctt ggttatcaaa taattacata ttctgacct tcagaaggac accaaaagct
600
acaattttat gtttcaatcc atctgtacct tcatttgcaa tggctcagct agttactca
660
agggttttgg gaccagacat aactcacgtc ctgcaggaag gagaagcaaa aggagcgggt
720
gaagagtacg tgtctgtgtc ttggtgtcat ctagctctc acagcaaaaca gcctgttttg
780
ttcagcctga agcctggaaa aggcgcgcga gcctagccag agcatccaca acgaaccaat
840
ctgagatccg agtggaagat gagagccccc gagctgggtg aggtccccc ggaagcttcc
900
cactctcgag tggcagggaag gccatgcctc tgcaggacgc tcgactgat tctggaagg
960
ccagggccag agaatacact tgggctcagt tcaccagccc aaaccacagg ggaaggagcc
1020
ggacaccggc ctctcaccat ttacaccca aagacaggag gtcagggctc tgatgtact
1080
cttctgtttg taaaatattg aaccacttcc ttgtactgt ttgaggtgag cagtggctcc
1140
aaactgagca agtgggttaa aaatgccaaa tgcaattata ctgacttata attatttcac
1200
agaaatatac tcttactctc agactattta aataagcagg aacaagatgc aggagaagca
1260
gcagcagaga ggaagaggga atagccaggg aattttttt gtttttttcc ttctttaaaa
1320
tacatacga gtgtaaagag aaaatggcca aaacctcaaa actaccattg ttgaaaacaa
1380
tattaaaagg acacaatcta aaatcatgct acaaaaatag tgttatcttg tttaactaaa
1440
tgtacatctt tttttccaat tccatgattg acaagagtc ttatgacgc catggaaggc
1500
accagaggtg aagtgattat ttgcctttaa atatacaaa aattgcctac tttgaaaaaa
1560
aaaatagtc tacttgtaaa taaatagttt agtgtttct ccatgggttc ctgaacccct
1620
acaaaatttc acatatata atagtttcaa ttccatccat tctcttagag ggaaccacgt
1680
caaacaaaat caagttagga aaagcactga ttttatccaa gtaggccaat ttgaggcaag
1740

attcaaaac tcattttaaa atgggttaca gaggtaaaga gttgggaaca ggcagcccc
 1800
 ttggggcctg ggtcagccta cgagtcacac ccagggtgtcc tgccctcaca tctgccagcc
 1860
 ctcaggccgg ccagggtctcc cttcaaaacc tgagtatttg ccttcctcac tctgcgaag
 1920
 aggggaacag aatcttgaag cttgcaaaat cgattctgga aaaagcaggc aagcaaagca
 1980
 gggcctgtgg ggggaagcag cgtgagtcag gctccacctt ggtgcaaggg caccagcagg
 2040
 tctccctect ctcccctect caccatccct acgcgt
 2076

<210> 2718

<211> 110

<212> PRT

<213> Homo sapiens

<400> 2718

Met	Arg	Ala	Pro	Glu	Leu	Ala	Glu	Val	Pro	Gln	Glu	Ala	Ser	His	Ser
1				5				10					15		
Ala	Val	Ala	Gly	Arg	Pro	Cys	Leu	Cys	Arg	Thr	Leu	Ala	Leu	Ile	Leu
			20					25				30			
Glu	Gly	Pro	Arg	Pro	Glu	Asn	Thr	Leu	Gly	Leu	Ser	Ser	Pro	Ala	Gln
			35				40				45				
Thr	Thr	Gly	Glu	Gly	Ala	Gly	His	Arg	Pro	Leu	Thr	Ile	Leu	His	Pro
			50			55				60					
Lys	Thr	Gly	Gly	Gln	Gly	Ser	Asp	Ala	Thr	Leu	Phe	Val	Lys	Tyr	
			65			70				75				80	
Gly	Thr	Thr	Phe	Phe	Val	Leu	Phe	Glu	Val	Ser	Ser	Gly	Ser	Lys	Leu
			85					90					95		
Ser	Lys	Trp	Leu	Lys	Asn	Ala	Lys	Cys	Asn	Tyr	Thr	Asp	Leu		
			100					105					110		

<210> 2719

<211> 546

<212> DNA

<213> Homo sapiens

<400> 2719

gtgggttatca ccttcaacca aggaactccgg ggtgggagcg tggtggagct gaagaaaaata
 60
 gtggatgagg ctgtgnaaca ctgccccacc gtgcagcatg tcttggtggc tcacaggaca
 120
 gacaacaagg tccacatggg ggatctggac gtcccgtgg agcaggaaat ggccaaggag
 180
 gaccctgttt gcgccccaga gagcatgggc agtgaggaca tgctcttcat gctgtacacc
 240
 tcagggaagca ccggaatgcc caaggggcatc gtccataacc aggcaggcta cctgtcttat
 300
 gccgccttga ctcacaagct tgtgtttgac caccagccag gtgacatctt tggctgtgtg
 360
 gccgacatcg gttggattac aggacacagc tacgtggtgt atgggcctct ctgcaatggt
 420

gccaccagcg tcctttttga gagcacccca gtttatecca atgctggctg gtactgggag
 480
 acagtagaga ggttgaagat caatcagttc tatgggtgcc caacggctgt ccggctgttg
 540
 ctgaaa
 546

<210> 2720
 <211> 182
 <212> PRT
 <213> Homo sapiens

<400> 2720
 Val Val Ile Thr Phe Asn Gln Gly Leu Arg Gly Gly Arg Val Val Glu
 1 5 10 15
 Leu Lys Lys Ile Val Asp Glu Ala Val Xaa His Cys Pro Thr Val Gln
 20 25 30
 His Val Leu Val Ala His Arg Thr Asp Asn Lys Val His Met Gly Asp
 35 40 45
 Leu Asp Val Pro Leu Glu Gln Glu Met Ala Lys Glu Asp Pro Val Cys
 50 55 60
 Ala Pro Glu Ser Met Gly Ser Glu Asp Met Leu Phe Met Leu Tyr Thr
 65 70 75 80
 Ser Gly Ser Thr Gly Met Pro Lys Gly Ile Val His Thr Gln Ala Gly
 85 90 95
 Tyr Leu Leu Tyr Thr Ala Ala Leu Thr His Lys Leu Val Phe Asp His Gln
 100 105 110
 Pro Gly Asp Ile Phe Gly Cys Val Ala Asp Ile Gly Trp Ile Thr Gly
 115 120 125
 His Ser Tyr Val Val Tyr Gly Pro Leu Cys Asn Gly Ala Thr Ser Val
 130 135 140
 Leu Phe Glu Ser Thr Pro Val Tyr Pro Asn Ala Gly Arg Tyr Trp Glu
 145 150 155 160
 Thr Val Glu Arg Leu Lys Ile Asn Gln Phe Tyr Gly Ala Pro Thr Ala
 165 170 175
 Val Arg Leu Leu Leu Lys
 180

<210> 2721
 <211> 5912
 <212> DNA
 <213> Homo sapiens

<400> 2721
 aggcagctgc tgtcctatgc ttgtatacat ccagccactt cgttagaaga ccgtagtgtc
 60
 ttaggccatgt ggctgaatca ctggaggac cgcacgtcga ccagctttgg tggccagaac
 120
 cgaggccgct cagactctgt ggattatgga cagacacact actatcacca aagacagaac
 180
 tctgatgaca agctcaatgg gtggcagaac tctcgggatt ctgggatttg catcaatgcc
 240
 tccaactggc aggacaaaag catgggggtgt gagaatggcc atgtgccctt ctactctccc
 300

tcattctgtcc ccaccacaat caatacgatt ggaaccagca caagtacaaa tgttccagcc
360
tggctgaaaa gcttcgcct gcacaaatat gccgcgttt tctccagat gacctatgag
420
gagatgatgg ccttcaccga gtgccagctg gaggcgaga atgttaccaa aggtgcaaga
480
cacaaaattg tcatcagtat tcagaagctc aaagaagac aaaatctcct gaagtctttg
540
gaaagggaca tcatcgaggg gggcagcctg cgcattcccg tccaggaact gcaccagatg
600
atcctgactc cgatcaaggc ctacagctcc ccgagcacca ccccgaggc tgcgcgcggg
660
gagccccagg ccccgctca gccctcactg atgggcccc agagccagag ccccgactgc
720
aaagatgggg ccgcagccac tggcgccac gccacccctt cggccggggg cagcgggggg
780
ctccagccgc accagctgag cagctgcgat ggggagctgg ccgtcgcctt cctgccagag
840
ggggacccct ccgggcagtt cacacgcgtc atggggaaa tggtgcacaca gctcttggtc
900
tccagacctg atgaggaaaa tataagttcc tatttacagc tcatagacaa gtgtctaatt
960
catgaggcat ttacagagac acagaaaaaa agatttgttg catggaaaca gcaggtgcag
1020
aagctcttcc ggtcttctcc tcggaaaacc cttctagaca tatcaggata tcgacagcaa
1080
agaaatcgag gctttgggca atccaactcc ctccgcagcg ctggctctgt gggcggtggc
1140
atgggcagac ggaaccgcgc ccagtcaccg atccccctc ggaacgtccc ttcgcccgcc
1200
ctgggcctct tgggcaccag tggattcgtc agctccaacc agcgcaacac cacagctacc
1260
cccacatca tgaacaagg aagacagaac ctgtggtttg ccaaccccg gggcagcaat
1320
agcatgccaa gccgcacca cagctcagtc cagaggacce gctcgtctgc cgtgcacact
1380
tccccacaga acatgctgat gtccagcag ccagaattcc agcttcccg gaccgaacct
1440
gacatcaaca acaggctgga gtctgtgtgc ctcatgatga ccgaacacgc cctgggagac
1500
ggggttgacc ggacctccac catctagaag ctgaagacga gagtaccgc gctggccgtg
1560
aaatcgactg ctgcgggtcc agtgtccgcc atcttcaggg ttgcacagaa tctccaaga
1620
tactttgag ccttttttcc ccttggtccc tctccggtt tgattttgtg agagcgtagg
1680
tcattcctgt aaacatatca gtagacctgg ggttggttat ttgtcattt gttctgtca
1740
tgggatggtt tgggtgtgtg ggtggggagg ggtctctagg gaattatgag actggggagg
1800
gggtggaggg aatgcagga gctctctgga tggaacgggg acaggggaaa gagtactgcc
1860
atgaaagaga taggagacac ataagaggac agcagaagcc ctggcccttg ggaggttct
1920

cggaaggcct ggcttcacag gcaggccaca gaaggatata gcgggcacgt gcacccaag
1980
caagatagtg gcttcccttt tatatccaat ctaatcctga ttggatgtcc ctgaggcccc
2040
tgctggaaac agccatagga gagggcccat ggcagtaggg gaaagaagga agaaattccc
2100
tgcaacaaaa cttcagctaa actttgattt gtgtattgtt tacataataa ttttaaaggg
2160
tacataatgt gtaaagagtt tggatagaac ctctcttcat actatggttt tcgtaaagga
2220
tctgtgtgtt ttacggatcc attttttccc tctattttta taagagcagc agagtgtct
2280
tctcaaaacg gctgccaaagc tctgcttctt gggaaagatgg atgcagtcac gtaggcctga
2340
gctgtccgtc tttcacggtt aggtgggagg agcgtatggg tggacttgaa ggacatggac
2400
gtggctggaa tgagcacagc attgggtgag cgcgcaagga tggagacac atgtgatcag
2460
ttatgggttt gctcgagggg caccacagga ttctcaaaaga atcctgcagc ctctttctgt
2520
gctggatttg cttgtcacgg agaggcctcc ctccctttcc acccaacca tggggcatta
2580
tcctgtcact ccagccttg ctcacacac acacaggtgg gtacaagttc cactggagga
2640
gaaaaggcaa ggaaggactt tttcccttg tgagaggttt gatacccaaga aaatgagctc
2700
aaaaccttta cattagggtt gctttagga actggagcct ggaggtgca tctaettcac
2760
ctgtcactgc tgagggagag gaggggagaa agggccagca acagcgtaca gaggggtcag
2820
tcagcaagtc cagagagcac atgcaggagg atgtttggcc cacaccgcac agcccccca
2880
tctccagtgg gcgatgaaag atgtaggaaa ggttgatttc aagatggaaa tgacagcgct
2940
atccgcacag tatgaattag ggatttgcgt tgttagttga tttatccatc cacacagagg
3000
ggaggaaaaa gacactcgtt acttggtggg agattgagaa actgtggtac ctaccacaaa
3060
gtaatagctc tgtttatgaa gggcaagaaa ggctacattt cagaatttga cacagtggag
3120
ggtattagag gaaatcaaag aggagtgttg tggaaaatca ggttgtgtaa atgaaggat
3180
gaatgctcag ccagaggcaa gatcaggagg atggtacaag gcctgtttgt tacatggatg
3240
agtcgggtgc ctggttgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gaagtcagag
3300
ttgaaattca gaagatcaga ctatggaaat cactgccctt ttttttttaa aagctaata
3360
actacatata gacctaaaag gccttaatga aatccgaaca attttctttt actttcaaga
3420
tcaaaaacat gcacccaacc cagccttgga tgccaccacc aggtttttga agcccttttg
3480
agtctaagaa ggtgagaaca atgtaaccat agaaagcctt tcgtgagcag agaaggcttg
3540

aatccacaat ttcattcgct gaattaaaaa aaaaaggttc agacctctcc ttgggtgact
3600
aagttctaaa gatgcaaatc catgtgcaga aagagatggc atttttttagt tgcattatctt
3660
taaccaagtg ccattaacat tcacccccca catccctttt ctaacaacgc ttagtgttac
3720
ttgggggaatg tgttgggatg gacgatcaca tgtaaggcag gaagaatagg tcaaagggtg
3780
aaggccaag gtaagaccag aggggtttgcg aatgtgggtt ttaggatac tgagaaagtg
3840
aataaaggagg agaaaaaac atggtattac acatcttgct gagaaggaag agcattcgga
3900
ctgtctgcaa aaacacatat atccataaag actcatgtta tcagaaaaac agattgtgaa
3960
cacaatcaca ttgcgatgaa tcctttaaaa ggaagaagac cttaaagtat ctgcaaatct
4020
gaatttctat ttattccttc actgaatata gaaacaatgg ttatctgatt attagagata
4080
ttatttttga tatgttactt attaaactgc tatggctggc aaccatgata aagctctgta
4140
ttataacaa cataattctt tttttaaga agaaaagctt atttttcatt gacagtgtat
4200
agatttatct acttagttgt gttttgctat tagtgtttta attttttttt taagttgagt
4260
gtttgataaa ttttaagacc ctgtccccc ctgttttga gtctgtgtt gactacaggt
4320
atagctca atttaaaat cctaaagcaa aagaatttta ttataaaag aatcaaacag
4380
ttgcatgcat gaggtgtga agtcagatat ttagtaataa aagcagcagt gccttttttt
4440
gtattttacc attgacccc accaaatgca actgttttat attaagaaaa tagtaacaat
4500
tttaaaatct cagagtaaaa tctatttcac tacatgcttt tcccccttg ttctgattta
4560
agcagtggtg acttggcacc tctacattgt cctagggaca gtgggtgtctt acaatattat
4620
catgtatgat gttttatttg tgctttttat tcatagtggc ttcttaccag aaacagtagg
4680
aagaaacaca tgaactgtgt acaagacatg aaacattgtg gctgatatgt tgttttttca
4740
catgcttttg agtttttact ttttaaacga gagccagcaa gcaaaataga tgtggctggg
4800
ctgcctgtgc cggggcggctc ttgcaacga gctctcaaat cctgtgtatt gagggctctc
4860
ttttggtact caggattgga gctacagctg ggccccctc tctccattc gtttgaagag
4920
acactgaggg aaacaagggg ttcttttgag gtgtccttgg ctgcctttta cgggagggga
4980
gcctctctcg gatcttttgt tctctgcac ctcttgtagc tactgccggt gcaagggtgt
5040
agatgttatt cccagggagc ctgggctggg gggctgagct gggctgaatg caaaagcatg
5100
caaccagaag gcgggcaagg ggaggaaaaa caggcctggc ctcatgtgtc cctcgagat
5160

gtcctgtagca gtcagctcca gcttgggcct ggggaagcag cctgaccaag ggcctcaggt
 5220
 gtgcctgtta caagaagaac ctgcagaagg ataatttgca catggagctg tgataaacact
 5280
 aatgtttgatt tttttttttt ttacaagtca tcagagatgt ttgcaaatgt agtttttttt
 5340
 ttttgttaatt ctttatctt tacttaaagg tgaatgtgta ttctctggg aggaatagga
 5400
 agaaaaacagg aatgttaata atgtogaaca gaaaactttcc tcccttatta atatataatc
 5460
 ctcatgtatt tatgcctaata gtaagctgac ttttaaaaaa ctttcttttg ttgcatgccc
 5520
 tgtgcaggca tctgtattgt acatgcatgc ctttcgtctc gtttctctgt ataaagttag
 5580
 tgaacaaaga aatatttttg cctagttcat gttgccaagc aatgcatatt ttttaaat
 5640
 gtcatatatg gaaagagcat gtttggttaca tgtaaaagct ttactgatat acagatatatc
 5700
 taatgtttga agatgctgtt ctttgcaagt gtacagtttt caaatgttgt taccagttaa
 5760
 acacccttgt ggtttaaaact tgctacaatg tatttattat tcatttcctc ccatgttaact
 5820
 aagaatcatg gctatatctc atatcaacgt tatattgaaa gtgaaggaggaa atgattaata
 5880
 caagggtttg taacaaaaaa aaaaaaaaaa aa
 5912

<210> 2722

<211> 508

<212> PRT

<213> Homo sapiens

<400> 2722

Arg Gln Leu Leu Ser Tyr Ala Leu Ile His Pro Ala Thr Ser Leu Glu
 1 5 10 15
 Asp Arg Ser Ala Leu Ala Met Trp Leu Asn His Leu Glu Asp Arg Thr
 20 25 30
 Ser Thr Ser Phe Gly Gly Gln Asn Arg Gly Arg Ser Asp Ser Val Asp
 35 40 45
 Tyr Gly Gln Thr His Tyr Tyr His Gln Arg Gln Asn Ser Asp Asp Lys
 50 55 60
 Leu Asn Gly Trp Gln Asn Ser Arg Asp Ser Gly Ile Cys Ile Asn Ala
 65 70 75 80
 Ser Asn Trp Gln Asp Lys Ser Met Gly Cys Glu Asn Gly His Val Pro
 85 90 95
 Leu Tyr Ser Ser Ser Ser Val Pro Thr Thr Ile Asn Thr Ile Gly Thr
 100 105 110
 Ser Thr Ser Thr Asn Val Pro Ala Trp Leu Lys Ser Leu Arg Leu His
 115 120 125
 Lys Tyr Ala Ala Leu Phe Ser Gln Met Thr Tyr Glu Glu Met Met Ala
 130 135 140
 Leu Thr Glu Cys Gln Leu Glu Ala Gln Asn Val Thr Lys Gly Ala Arg
 145 150 155 160
 His Lys Ile Val Ile Ser Ile Gln Lys Leu Lys Glu Arg Gln Asn Leu

```

165      170      175
Leu Lys Ser Leu Glu Arg Asp Ile Ile Glu Gly Gly Ser Leu Arg Ile
180      185      190
Pro Leu Gln Glu Leu His Gln Met Ile Leu Thr Pro Ile Lys Ala Tyr
195      200      205
Ser Ser Pro Ser Thr Thr Pro Glu Ala Arg Arg Arg Glu Pro Gln Ala
210      215      220
Pro Arg Gln Pro Ser Leu Met Gly Pro Glu Ser Gln Ser Pro Asp Cys
225      230      235
Lys Asp Gly Ala Ala Ala Thr Gly Ala Thr Ala Thr Pro Ser Ala Gly
245      250      255
Ala Ser Gly Gly Leu Gln Pro His Gln Leu Ser Ser Cys Asp Gly Glu
260      265      270
Leu Ala Val Ala Pro Leu Pro Glu Gly Asp Leu Pro Gly Gln Phe Thr
275      280      285
Arg Val Met Gly Lys Val Cys Thr Gln Leu Leu Val Ser Arg Pro Asp
290      295      300
Glu Glu Asn Ile Ser Ser Tyr Leu Gln Leu Ile Asp Lys Cys Leu Ile
305      310      315
His Glu Ala Phe Thr Glu Thr Gln Lys Lys Arg Leu Leu Ser Trp Lys
325      330      335
Gln Gln Val Gln Lys Leu Phe Arg Ser Phe Pro Arg Lys Thr Leu Leu
340      345      350
Asp Ile Ser Gly Tyr Arg Gln Gln Arg Asn Arg Gly Phe Gly Gln Ser
355      360      365
Asn Ser Leu Pro Thr Ala Gly Ser Val Gly Gly Gly Met Gly Arg Arg
370      375      380
Asn Pro Arg Gln Tyr Gln Ile Pro Ser Arg Asn Val Pro Ser Ala Arg
385      390      395
Leu Gly Leu Leu Gly Thr Ser Gly Phe Val Ser Ser Asn Gln Arg Asn
405      410      415
Thr Thr Ala Thr Pro Thr Ile Met Lys Gln Gly Arg Gln Asn Leu Trp
420      425      430
Phe Ala Asn Pro Gly Gly Ser Asn Ser Met Pro Ser Arg Thr His Ser
435      440      445
Ser Val Gln Arg Thr Arg Ser Leu Pro Val His Thr Ser Pro Gln Asn
450      455      460
Met Leu Met Phe Gln Gln Pro Glu Phe Gln Leu Pro Val Thr Glu Pro
465      470      475
Asp Ile Asn Asn Arg Leu Glu Ser Leu Cys Leu Ser Met Thr Glu His
485      490      495
Ala Leu Gly Asp Gly Val Asp Arg Thr Ser Thr Ile
500      505

```

<210> 2723

<211> 1221

<212> DNA

<213> Homo sapiens

<400> 2723

```

ntgatcacgg gggcagccga ctctaagggtg catgtgcacg acctgacagt aaaggagacc
60
atccacatgt ttggagacca cacaaaccgg gtgaagcgca tcgccacagc gcccatgtgg
120

```

```

cccaacacat tctggagtgc tgcagaggat gggcttatcc gccagtatga ccttcgagag
180
aacagcaaac actcggaggt gctgattgac ctgacagagt actgtggcca gctgggtggag
240
gccaagtgcc tcaactgtcaa cccccaggac aacaactgcc tggcagttgg gccagcggg
300
cccttcgtga ggctctatga catccgcatg atccataacc acagaaagag catgaagcag
360
agcccttcag cgggtgtgca caccttctgt gaccggcaga aacccttcc ggacggtgca
420
gccacagtatt acgtagcagg tcacctgccca gtgaagcttc ctgactacaa caaccgtttg
480
agagtgcctgg ttgccacctt tgtgaccttc agccccaatg gcacagagct actagtcaac
540
atggggggggg aacagggtcta tttgtttgac ttgacttaca agcagcggcc gtacaccttc
600
ctcttgcccta gaaaatgccca ctctcggggg gaagtccaga atggcaagat gtccaccaac
660
gggtgtgtcca acggtgtgtc caatggcctg caccttata gcaatggctt ccggctgccg
720
gagagtaggg gacatgtcag cccccaagta gagctaccac catacctgga gcgtgtgaaa
780
cagcaagcca atgaggcttt tgccctgccag cagtggaccc aagccattca gctttacagc
840
aaggctgtgc agagggcccc tcacaatgcc atgctttatg gaaaccgagc agcagcctac
900
atgaagcgca agtgggatgg tgaccactat gatgccctga gggactgcct caaggccatc
960
tcctctaaacc catgccacct gaaggcacac tttgcctgg cccgctgcct ctttgagctc
1020
aagtattgtg ctgaagccct ggagtgcctg gacgacttca aagggaatt tcgggagcag
1080
gccacagca gcgcttgtga tgcattgggc cgcgacatca cagctgcctt cttctctaaa
1140
aatgatgggt agggagaagaa gggacctggt gggggcgccc cagtccgcct ccgcagcacg
1200
agccgcaagg gatgcacgcg t
1221

```

<210> 2724

<211> 404

<212> PRT

<213> Homo sapiens

<400> 2724

```

Gly Ala Ala Asp Ser Lys Val His Val His Asp Leu Thr Val Lys Glu
1      5      10      15
Thr Ile His Met Phe Gly Asp His Thr Asn Arg Val Lys Arg Ile Ala
20     25     30
Thr Ala Pro Met Trp Pro Asn Thr Phe Trp Ser Ala Ala Glu Asp Gly
35     40     45
Leu Ile Arg Gln Tyr Asp Leu Arg Glu Asn Ser Lys His Ser Glu Val
50     55     60
Leu Ile Asp Leu Thr Glu Tyr Cys Gly Gln Leu Val Glu Ala Lys Cys

```

```

65          70          75          80
Leu Thr Val Asn Pro Gln Asp Asn Asn Cys Leu Ala Val Gly Ala Ser
85
Gly Pro Phe Val Arg Leu Tyr Asp Ile Arg Met Ile His Asn His Arg
100
Lys Ser Met Lys Gln Ser Pro Ser Ala Gly Val His Thr Phe Cys Asp
115
Arg Gln Lys Pro Leu Pro Asp Gly Ala Ala Gln Tyr Tyr Val Ala Gly
130
His Leu Pro Val Lys Leu Pro Asp Tyr Asn Asn Arg Leu Arg Val Leu
145
Val Ala Thr Tyr Val Thr Phe Ser Pro Asn Gly Thr Glu Leu Leu Val
165
Asn Met Gly Gly Glu Gln Val Tyr Leu Phe Asp Leu Thr Tyr Lys Gln
180
Arg Pro Tyr Thr Phe Leu Leu Pro Arg Lys Cys His Ser Ser Gly Glu
195
Val Gln Asn Gly Lys Met Ser Thr Asn Gly Val Ser Asn Gly Val Ser
210
Asn Gly Leu His Leu His Ser Asn Gly Phe Arg Leu Pro Glu Ser Arg
225
Gly His Val Ser Pro Gln Val Glu Leu Pro Pro Tyr Leu Glu Arg Val
245
Lys Gln Gln Ala Asn Glu Ala Phe Ala Cys Gln Gln Trp Thr Gln Ala
260
Ile Gln Leu Tyr Ser Lys Ala Val Gln Arg Ala Pro His Asn Ala Met
275
Leu Tyr Gly Asn Arg Ala Ala Tyr Met Lys Arg Lys Trp Asp Gly
290
Asp His Tyr Asp Ala Leu Arg Asp Cys Leu Lys Ala Ile Ser Leu Asn
305
Pro Cys His Leu Lys Ala His Phe Arg Leu Ala Arg Cys Leu Phe Glu
325
Leu Lys Tyr Val Ala Glu Ala Leu Glu Cys Leu Asp Asp Phe Lys Gly
340
Lys Phe Pro Glu Gln Ala His Ser Ser Ala Cys Asp Ala Leu Gly Arg
355
Asp Ile Thr Ala Ala Leu Phe Ser Lys Asn Asp Gly Glu Glu Lys Lys
370
Gly Pro Gly Gly Gly Ala Pro Val Arg Leu Arg Ser Thr Ser Arg Lys
385
Gly Cys Thr Arg
390

```

<210> 2725

<211> 856

<212> DNA

<213> Homo sapiens

<400> 2725

```

naagcggtcca gtgtgccgca ggcacagcac caaccacagc ggccctacct cggccctggc
60
ctgaccccg cgccctgcc cgccctccc tcagcatca tggccagccc aagaaccagg
120

```

aaggttctta aagaagtcag ggtgcaggat gagaacaacg tttgttttga gtgtggcgcg
180
ttcaatcctc agtgggtcag tgtgacctac ggcatctgga tctgcctgga gtgctcgggg
240
agacaccgcg ggcttggggg tcacctcagc tttgtgcgct ctgttactat ggacaagtgg
300
aaggacattg agcttgagaa gatgaaagct ggtgggaatg ctaagttccg agagtctctg
360
gagtctcagg aggattacga tccttgctgg tccttcgagg agaagtacaa cagcagagcc
420
gcggccctct ttagggataa ggtggtcgct ctggccgaag gcagagagtg gtctctggag
480
tcatacactg ccagaaactg gacccacact cagcccagga cgctgccgtc catggtgcac
540
cggtagctgc tcctcgctgg gccttagtac agtttccact ggtcctgaa cttagtagat
600
tgggtttccc acagaattct cccctctttt gctgttttga cagctctttt ccagaaagtc
660
agtgggaaaa acagcttttt aaaattgcc aacaataca agcttttagt aaatttggac
720
accatagag ctgtctcaga tagcgcccca ggtaagctcc gcacgccttc caggtgtgca
780
cacagccgtg tctgcctgg cgctgtggga gttcacatct ccatctgctc accgggggtg
840
tgtctgcct tcacgc
856

<210> 2726

<211> 148

<212> PRT

<213> Homo sapiens

<400> 2726

Met Ala Ser Pro Arg Thr Arg Lys Val Leu Lys Glu Val Arg Val Gln
1 5 10 15
Asp Glu Asn Asn Val Cys Phe Glu Cys Gly Ala Phe Asn Pro Gln Trp
20 25 30
Val Ser Val Thr Tyr Gly Ile Trp Ile Cys Leu Glu Cys Ser Gly Arg
35 40 45
His Arg Gly Leu Gly Val His Leu Ser Phe Val Arg Ser Val Thr Met
50 55 60
Asp Lys Trp Lys Asp Ile Glu Leu Glu Lys Met Lys Ala Gly Gly Asn
65 70 75 80
Ala Lys Phe Arg Glu Phe Leu Glu Ser Gln Glu Asp Tyr Asp Pro Cys
85 90 95
Trp Ser Leu Gln Glu Lys Tyr Asn Ser Arg Ala Ala Ala Leu Phe Arg
100 105 110
Asp Lys Val Val Ala Leu Ala Glu Gly Arg Glu Trp Ser Leu Glu Ser
115 120 125
Ser Pro Ala Gln Asn Trp Thr Pro Pro Gln Pro Arg Thr Leu Pro Ser
130 135 140
Met Val His Arg
145

<210> 2727
 <211> 1119
 <212> DNA
 <213> Homo sapiens

<400> 2727
 ttttttttgc ttttataaac attcaaccaa catgttcttt aataatctct tctttaaaga
 60
 acaaaataat caagtacatg gcattaagtt aaatgtctct gcacatgaat ttccacctta
 120
 taaatctggg atattaaatt gtgctgtaaa tagatttgta ttttttcttt tttagtact
 180
 atgtagaggg aaatgggatg actataaaaa ggattttgtt ctttttctct cctggaatga
 240
 catgatgcct ttctagagaa agaaaaattg cagggtacag gaaaatgata aaaactactg
 300
 gattcattta gactattcga tttaggaagg tacaaccact tctttaacat caagctaaaa
 360
 gtgggggaaa gtctcagctc cccaggtagg tctcctctca cactgtcctg ggtggcaggc
 420
 gctgtttata catgcccgct atcgtctctg ctgcactgta gatcatctgc cgacgggaca
 480
 tcccagtaaa tgccatgtgc caatcagtcg ggctgacatt cagtaaacac ttttccagga
 540
 cttcacccac tgtcacaaa aggcctgacc acctcagatt atagtcctgg ggagtttagc
 600
 tttgagcctg ctgtacaaat tccaaaggca ctggtgtggc ttgtgtaaat gtttctagat
 660
 gaatgccatg gacaggatct tcaaccacca aacaaccaat gtcaaacat ttgtcaggca
 720
 gcaattctgc aatgaagttt tctactgaca cagctgtctg ttttctatgg atcacccag
 780
 ttggaagcaa gctatctatc cgttcctgag cactttttaa tccagctgca tagccactg
 840
 gttgtggggc aatattggac tgtccagcct cccctacaac cacagctagg cgaagacct
 900
 cctggaaggc atctcggaac gcagccactt tcacttcttt atttgaggtc actacaatat
 960
 ccagttcacc tccagatttg atatagggag ccattgccagg gtccagcgtt gtaatcatgc
 1020
 tttctactga atgtttttgtc ttatcaagca cagacttcac cataggattc ccagccacac
 1080
 ccttaataaa accccagatt ccaccagcag atgcttcac
 1119

<210> 2728
 <211> 221
 <212> PRT
 <213> Homo sapiens

<400> 2728
 Met Val Lys Ser Val Leu Asp Lys Thr Lys His Ser Val Glu Ser Met
 1 5 10 15
 Ile Thr Thr Leu Asp Pro Gly Met Ala Pro Tyr Ile Lys Ser Gly Gly

	20		25		30
Glu	Leu	Asp	Ile	Val	Val
	35		40		45
Val	Arg	Asp	Ala	Phe	Gln
	50		55		60
Glu	Ala	Gly	Gln	Ser	Asn
	65		70		75
Gly	Leu	Lys	Gly	Ala	Gln
		85			90
Val	Ile	His	Glu	Lys	Gln
		100			105
Glu	Leu	Leu	Pro	Asp	Lys
		115			120
Asp	Pro	Val	His	Gly	Ile
		130			135
Val	Pro	Leu	Glu	Phe	Val
		145			150
Tyr	Asn	Leu	Arg	Trp	Ser
			165		170
Glu	Lys	Ser	Leu	Leu	Asn
			180		185
Thr	Gly	Met	Ser	Arg	Arg
			195		200
Ala	Gly	Met	Tyr	Lys	Gln
			210		215

<210> 2729

<211> 393

<212> DNA

<213> Homo sapiens

<400> 2729

nnggtggcac ggatcgtagg agccaaatgt ttgttttcct tcttatccct tcgagaccaa
 60
 atgcagcccc agcagtgggtg aggcactact ttcttgaaga gttgtgcac catgtaggtc
 120
 agctgctctg ccacgagatc ttctgagaag cacgtgaatt ctgctgactc tccacctcc
 180
 agttcctctt cctcttccat actaagggcc tggcttgacc agtgtgcaga agacttccga
 240
 gagccccctc acttccccctg cttacagaaa ctgctggatt atctcacacg gatgatgccg
 300
 ggctctgacc cagaaaagaag agcacaaaat cttcttgagc agtttcagaa gcaagaagtg
 360
 gaaactgaca atgggcttcc caacacgac tcc
 393

<210> 2730

<211> 92

<212> PRT

<213> Homo sapiens

<400> 2730

Val Ser Cys Ser Ala Thr Arg Ser Ser Glu Lys His Val Asn Ser Ala


```

      1           5           10           15
Asp Ser Pro Pro Ser Ser Ser Ser Ser Ser Ile Leu Arg Ala Trp
      20           25           30
Leu Asp Gln Cys Ala Glu Asp Phe Arg Glu Pro Pro His Phe Pro Cys
      35           40           45
Leu Gln Lys Leu Leu Asp Tyr Leu Thr Arg Met Met Pro Gly Ser Asp
      50           55           60
Pro Glu Arg Arg Ala Gln Asn Leu Leu Glu Gln Phe Gln Lys Gln Glu
      65           70           75           80
Val Glu Thr Asp Asn Gly Leu Pro Asn Thr Ile Ser
      85           90

```

<210> 2731

<211> 447

<212> DNA

<213> Homo sapiens

<400> 2731

```

ncgcctccga cctgaaagca cgtccacctc tgcggctcct acctgggtgc aatcgagtta
60
aatggctgat aagcagatca gctgcccagc caagctcacc aatggcgcca tcgctggctg
120
atcggtgtca cctgcgtgtt tcccatcgac ctggccaaga ccaggctgca gaaccagcag
180
aacggccagc gcgtgtacac gagcatgtcc gactgcctca tcaagaccgt ccgctccgag
240
ggctacttcg gcattgtaccg gggagctgct gtgaacttga ccctcgtcac ccccagagaag
300
gccatcaagc tggcagccaa cgacttcttc cgacatcagc tctctaagga cgggcagagaag
360
ctgacccctgc ttaaagagat gctggcggcg tgtggggctg gcacctgcca ggtgatcgtg
420
accacgcccc tggagatgct gaagatc
447

```

<210> 2732

<211> 125

<212> PRT

<213> Homo sapiens

<400> 2732

```

Ala Asp Gln Pro Ala Ser Gln Ala His Gln Trp Arg His Arg Gly Leu
1           5           10           15
Ile Gly Val Thr Cys Val Phe Pro Ile Asp Leu Ala Lys Thr Arg Leu
      20           25           30
Gln Asn Gln Gln Asn Gly Gln Arg Val Tyr Thr Ser Met Ser Asp Cys
      35           40           45
Leu Ile Lys Thr Val Arg Ser Glu Gly Tyr Phe Gly Met Tyr Arg Gly
      50           55           60
Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala Ile Lys Leu
      65           70           75           80
Ala Ala Asn Asp Phe Phe Arg His Gln Leu Ser Lys Asp Gly Gln Lys
      85           90           95
Leu Thr Leu Leu Lys Glu Met Leu Ala Gly Cys Gly Ala Gly Thr Cys

```

	100		105		110
Gln Val Ile Val Thr Thr Pro Met Glu Met Leu Lys Ile					
	115		120		125

<210> 2733
 <211> 3619
 <212> DNA
 <213> Homo sapiens

<400> 2733
 gaattctgcc gcaagttccg cgtgagtgcc tggctccttc acccccatgg ggcgagactg
 60
 tcgggcatgg gtatgggggtg ccagagggtc ctggccacct ggggcttget gtcctgagag
 120
 ccccgaccac catgtcaccc ccaacagctg gactgcccgc tggccatgga gcggatcaag
 180
 gaggaccggc ccatcaccat caaggacgac aagggcaacc tcaaccgctg catcgagac
 240
 gtgggtctgc ttttcatcac ggtcatggac aagctgcgcc tggcggagct gacgggtggac
 300
 gagttcctag ctctgggctt tgactccgag tccgaatccg agtccgaaaa ttctccacaa
 360
 gcggagacac ggggaagcac cgaggctgcc cggagtcggg ataagcggg cgggagcccc
 420
 tcggccagcc ggcgtaaaag ccgtgctctc gaggcacaag accagctctc tcggctgaag
 480
 gacagagacc cagagttcta caagttcctg caggagaatg accagagcct gctaaacttc
 540
 agcgactcgg acagctctga ggaggaagag gggccgttcc actccctgcc agatgtgctg
 600
 gaggaagcca gtgaggagga ggtatggagcg gaggaaggag aagatgggga cagagtcccc
 660
 agagggtcga aggggaagaa gaattctgtt cctgtgaccg tcgccatggg tgagagatgg
 720
 aagcaggcag caaagcaacg cctcactcca aagctgttcc atgaagtggg acaggcgctc
 780
 cgagcagctg tggccaccac ccgaggggac caggaaagtg ctgaggccaa caaattccag
 840
 gtacaggaca gtgctgcatt caatgctctg gttaccttct gcatcagaga cctcattggc
 900
 tgcctccaga agctgtgtgt tggaaagggt gcaaaggata gcagcaggat gctgcagccg
 960
 tccagcagcc cgctctgggg gaagcttctg gtggacatca aggcttacct gggctcggcc
 1020
 atacagctgg tgcctctgtc gtcggagacg acggtgttgg cggccgtgct gcggcacatc
 1080
 agcgtgctgg tgccctgctt cctgaccttc cccaagcagt gccgcatgct gctcaagaga
 1140
 atgggtgctg tatggagcac tggggaggag tctctgcggg tgctggcttt cctggctcct
 1200
 agcagagtct gccggcaca gaaggacact ttccttgccc ccgtcctcaa gcaaatgtac
 1260
 atcacgtatg tgaggaactg caagttcacc tcgctcgttg cctccccctt catcagtttc
 1320

atgcagtgga ccttgacgga gctgctggcc ctggagccgg gtgtggccta ccagcacgcc
1380
ttcctctaca tccgccagct cgccatacac ctgcgcaacg ccatgaccac ccgcaagaag
1440
gaacataacc agtctgtgta caactggcag tatgtgcact gcctcttctt gtgttgccgg
1500
gtcctgagca ctgcggggccc cagcgaagcc ctccagccct tggcttacct ccttgcccaa
1560
gtcatcattg gctgtatcaa gctcatcccc actgcccgct tctaccgct gcgaatgcac
1620
tgcatccgtg ccctgacgct gctctcgggg agctcggggg ccttcatccc ggtgctgcct
1680
ttcatcctgg agatgttcca gcaggtcgac ttcaacagga agccaggggc catgagctcc
1740
aagcccatca acttctccgt gatcctgaag ctgtccaatg tcaacctgca ggagaaggcg
1800
taccgggacg ccctggtgga gcagctgtac gacctcacc tggagtacct gcacagccag
1860
gcacactgca tcggcttccc ggagctgggtg ctgcctgtgg tcctgcagct gaagtcttcc
1920
ctccgggagt gcaaggtggc caactactgc cggcagggtg agcagctgct tgggaagggt
1980
caggagaact cggcatacat ctgcagccgc cgccagaggg ttctcttcgg cgtctctgag
2040
cagcaggcag tggaagcctg ggagaagctg acccggaag aggggacacc cctgaccttg
2100
tactacagcc actggcgcaa gctgcgtgac cgggagatcc agctggagat cagtggcaaa
2160
gagcgggtgc ggctcggcga ggggacctgg ctggaagacc tgaacttccc tgagatcaaa
2220
cgaagggaaga tggctgacag gaaggatgag gacaggaagc aatttaaaga cctctttgac
2280
ctgaacagct ctgaagagga cgacaccgag ggattcttgg aaagagggat actggggccc
2340
ctgagcactc ggcattgggt ggaagacgat gaagaggagc aggaggaggg cgaggaggac
2400
agcagcaact cggagggtga atggctcttg gatggagacc cagacgcaga ggcgggactg
2460
gcccctgggg agctgcagca gctggcccag gggccggagg acgagctgga ggaatctgcag
2520
ctctcagagg acgactgagg cagcccatct ggggggcctg taggggctgc cgggctggtg
2580
gccagtgttt ccacctccct ggcagtcagg cctagaggct ggcgtctgtg cagtgggggg
2640
aggcagtaga cacgggacag gctttattat ttatttttca gcatgaaaga ccaaactgat
2700
cgagagctgg gctgggctgg gctggtgtgg ctgctgaagc ccagagctg tgggctgctg
2760
aagtacgctc cgcgggggag ctgacctga cgtcagcaga ccgagaccag tcccagttcc
2820
aggggggaggc ctgcaggccc ctggccctt ccaccacctc tgccctcgt ctgcagacct
2880
cgtccatctg caccaggctc tgcccttact cccccaagtc ttggaaatt tgttcttttc
2940

ctttgaagtc acattttctt ttaaaatctt ttgttttgca tccgaaaccg aaagaataaa
 3000
 agcgggtggga ggcagggtcca ttgtgttgag tgggtgggaag gttgcgctcc tggctgcagg
 3060
 acgcctctcg gaaagagatg ttcacgtccc agtgggtgtg gactctcttc ttcattgatac
 3120
 ggatgtgcgg accatctctc tgcttcaagc ctgcccgcgc cacagggtggg gccactcccc
 3180
 tcgctgtcac catcgctggc agagaagctg ggagtctgct ccttctctcag gttccggggc
 3240
 gcagggcagg cgactgtcct cttgtctgcc agccgcaccg gttcaccggg gaggatattc
 3300
 ggcagccccc gcagtcgcag atcggaggat gcacctgcag gatcccttg gacataagcg
 3360
 tcttcagact tttccctttg tggcggatgc tgcgcttcca gtccttgccc gtctcgcggg
 3420
 cgctgacgaa ctggaactcg ttgggcgtta gccactcgcc gcggtggcgg atggacgggg
 3480
 ccttnctgcc cttgcagagt ttgcgcacgt aaagcagcgc gcggttgccg ccgcaactcca
 3540
 cctcgatnca cggctcgccc ttntccagca gcggctggaa atccggggcc gcggcgccgg
 3600
 tggcccgagaa gcgctcgag
 3619

<210> 2734

<211> 790

<212> PRT

<213> Homo sapiens

<400> 2734

Met	Glu	Arg	Ile	Lys	Glu	Asp	Arg	Pro	Ile	Thr	Ile	Lys	Asp	Asp	Lys
1				5				10					15		
Gly	Asn	Leu	Asn	Arg	Cys	Ile	Ala	Asp	Val	Val	Ser	Leu	Phe	Ile	Thr
			20					25				30			
Val	Met	Asp	Lys	Leu	Arg	Leu	Ala	Glu	Leu	Thr	Val	Asp	Glu	Phe	Leu
		35					40				45				
Ala	Ser	Gly	Phe	Asp	Ser	Glu	Ser	Glu	Ser	Glu	Ser	Glu	Asn	Ser	Pro
		50				55					60				
Gln	Ala	Glu	Thr	Arg	Glu	Ala	Arg	Glu	Ala	Ala	Arg	Ser	Pro	Asp	Lys
				70				75						80	
Pro	Gly	Gly	Ser	Pro	Ser	Ala	Ser	Arg	Arg	Lys	Gly	Arg	Ala	Ser	Glu
				85				90						95	
His	Lys	Asp	Gln	Leu	Ser	Arg	Leu	Lys	Asp	Arg	Asp	Pro	Glu	Phe	Thr
			100					105					110		
Lys	Phe	Leu	Gln	Glu	Asn	Asp	Gln	Ser	Leu	Leu	Asn	Phe	Ser	Asp	Ser
		115					120					125			
Asp	Ser	Ser	Glu	Glu	Glu	Glu	Gly	Pro	Phe	His	Ser	Leu	Pro	Asp	Val
		130					135				140				
Leu	Glu	Glu	Ala	Ser	Glu	Glu	Glu	Asp	Gly	Ala	Glu	Glu	Gly	Glu	Asp
				145			150			155				160	
Gly	Asp	Arg	Val	Pro	Arg	Gly	Leu	Lys	Gly	Lys	Lys	Asn	Ser	Val	Pro
				165				170						175	
Val	Thr	Val	Ala	Met	Val	Glu	Arg	Trp	Lys	Gln	Ala	Ala	Lys	Gln	Arg

Leu Thr Pro			180	Leu Phe His			185	Val Val Gln			190	Ala Phe Arg			Ala Ala Ala		
			195				200				205						
Val Ala Thr	Thr	Arg	Gly	Asp	Gln	Glu	Ser	Ala	Glu	Ala	Asn	Lys	Phe				
Gln Val Thr			225	Ala Ala Phe			235	Leu Val Thr			240	Phe Cys Ile			Val Ala Trp		
Arg Asp Leu	Ile	Gly	Cys	Leu	Gln	Lys	Leu	Leu	Phe	Gly	Lys	Val	Ala				
Lys Asp Ser			260	Ser Arg Met			265	Pro Ser Ser			270	Leu Thr Gly			Ile Gln Leu		
Lys Leu Arg	Val	Asp	Ile	Lys	Ala	Tyr	Leu	Gly	Ser	Ala	Ile	Gln	Leu				
Val Ser Cys	Leu	Ser	Glu	Thr	Thr	Val	Leu	Ala	Ala	Val	Leu	Arg	His				
Ile Ser Val			305	Leu Val Pro			315	Phe Pro Lys			320	Gln Cys Arg			Val Ala Trp		
Met Leu Leu	Lys	Arg	Met	Val	Val	Val	Trp	Ser	Thr	Gly	Glu	Glu	Ser				
Leu Arg Val			340	Leu Ala Phe			345	Leu Ser Arg			350	Arg His Lys			Val Ala Trp		
Lys Asp Thr	Phe	Leu	Gly	Pro	Val	Leu	Lys	Gln	Met	Tyr	Ile	Thr	Tyr				
Val Arg Asn	Cys	Lys	Phe	Thr	Ser	Pro	Gly	Ala	Leu	Pro	Phe	Ile	Ser				
Phe Met Gln			385	Thr Leu Thr			395	Leu Ala Leu			400	Glu Val Thr			Ala Ile His		
Ala Tyr Gln	His	Ala	Phe	Leu	Tyr	Ile	Arg	Gln	Leu	Ala	Ile	His	Leu				
Arg Asn Ala			420	Met Thr Thr			425	Lys Glu Thr			430	Ser Val Tyr			Val Ala Trp		
Asn Trp Gln	Tyr	Val	His	Cys	Leu	Phe	Leu	Trp	Cys	Arg	Val	Leu	Ser				
Thr Ala Gly			450	Pro Ser Glu			455	Ala Leu Gln			460	Val Tyr Pro			Leu Ala Trp		
Gln Val Ile	Ile	Gly	Cys	Ile	Lys	Leu	Ile	Pro	Thr	Ala	Arg	Phe	Tyr				
Pro Leu Arg			485	Met His Cys			490	Ala Leu Thr			495	Leu Leu Ser			Gly Val Thr		
Ser Gly Ala	Phe	Ile	Pro	Val	Leu	Pro	Phe	Ile	Leu	Glu	Met	Phe	Gln				
Gln Val Asp			515	Phe Asn Arg			520	Gly Arg Met			525	Ser Lys Pro			Ile Val Thr		
Asn Phe Ser	Val	Ile	Leu	Lys	Leu	Ser	Asn	Val	Asn	Leu	Gln	Glu	Lys				
Ala Tyr Arg			545	Asp Gly Leu			555	Leu Tyr Asp			560	Leu Thr Leu			Val Ala Trp		
Tyr Leu His	Ser	Gln	Ala	His	Cys	Ile	Gly	Phe	Pro	Glu	Leu	Val	Leu				
Pro Val Val			580	Leu Gln Leu			585	Leu Arg Glu			590	Cys Lys Val			Ala Thr Trp		
Asn Tyr Cys	Arg	Gln															

```

        610                615                620
Glu Gln Gln Ala Val Glu Ala Trp Glu Lys Leu Thr Arg Glu Glu Gly
625                630                635                640
Thr Pro Leu Thr Leu Tyr Tyr Ser His Trp Arg Lys Leu Arg Asp Arg
        645                650                655
Glu Ile Gln Leu Glu Ile Ser Gly Lys Glu Arg Val Arg Leu Gly Glu
        660                665                670
Gly Thr Trp Leu Glu Asp Leu Asn Phe Pro Glu Ile Lys Arg Arg Lys
        675                680                685
Met Ala Asp Arg Lys Asp Glu Asp Arg Lys Gln Phe Lys Asp Leu Phe
        690                695                700
Asp Leu Asn Ser Ser Glu Glu Asp Asp Thr Glu Gly Phe Leu Glu Arg
705                710                715                720
Gly Ile Leu Gly Pro Leu Ser Thr Arg His Gly Val Glu Asp Asp Glu
        725                730                735
Glu Asp Glu Glu Glu Gly Glu Glu Asp Ser Ser Asn Ser Glu Gly Glu
        740                745                750
Trp Ser Trp Asp Gly Asp Pro Asp Ala Glu Ala Gly Leu Ala Pro Gly
        755                760                765
Glu Leu Gln Gln Leu Ala Gln Gly Pro Glu Asp Glu Leu Glu Asp Leu
        770                775                780
Gln Leu Ser Glu Asp Asp
785                790

<210> 2735
<211> 1666
<212> DNA
<213> Homo sapiens

<400> 2735
nncccgggcg ggcgcggggc cgcgatggcag cggcggagca gggctgagcc cgtgccccg
60
ccgcagttcc cggccccgct ggccccagtc atggcgaagc agtacgatgt gctgttccgg
120
ctgctgtgta tcggggactc cgggggtggc aagacctgcc tgctgtgccg cttcacggac
180
aacgagttcc actcctcgca catctccacc atcgggtgtg actttaagat gaagaccata
240
gaggtagacg gcatcaaagt gcggatacag atctgggaca ctgcagggca ggagagatac
300
cagaccatca caaagcagta ctatcggcgg gcccagggga tatttttggg ctatgacatt
360
agcagcgagc gctcttacca gcacatcatg aagtgggtca gtgacgtgga tgagtagcga
420
ccagaaggcg tccagaagat ccttattggg aataaggctg atgaggagca gaaacggcag
480
gtgggaagag agcaagggca gcagaaatgt ccttctcttc agctggcgaa ggagtatggc
540
atggacttct atgaacaagc tgccctgcacc aacctcaaca ttaaagatgc attcacgcgt
600
ctgacagagc tgggtgctgca ggcccatagg aaggagctgg aaggcctccg gatcggtgcc
660
agcaatgagt tggcactggc agagctggag gaggaggagg gcaaacccga gggcccgcg
720

```

```

aactcttcga aaacctgctg gtgctgagtc ctgtgtgggg caccaccacac gacacccttc
780
ttccctcagg aggccctggt gcagacaggg gagccggggg ttgtccctgc tgcgtctctc
840
tcgtgtgatg accctattga gtatcagtag ccactactcc cctgctctgg ccctgagagc
900
ggctctgctg tcatctcaag cagccctgt cccagcccg tccaccctgg agtgggtctc
960
ttcagcctgt ttccccagcc acaggcctgc tacgaccccc acgatgtgcc gcaagcactg
1020
tctcaccatc ccgacccac cagacaacag ccagggtggt agtccaggcc actttcagct
1080
gtctctttct ccgtgcacgt tgtctcttct ctgcttttct tctcttcccc caettctctt
1140
tctctgaccc ctccccctcg gtgcgtttcg tatcaaaagt cctcaaaccc cgctccccgt
1200
gtgtcctgct gtgtgcagct cgctctttcc ttcttctcta agctatccaa ggggtatggac
1260
ccaggctcgt ggggaggttc cacccttga tccaggaaag accctccacc ctgcctcgtg
1320
ggtggggccaa aggctacagg gtgcttcttc ctcttctccc acccccactg tccctcatgt
1380
gccatggggc tgccctccca gtgacctgcg aaagtggagc atcgaggtag gagggaaaag
1440
gcaaccagggt agtctctcag cctggggctg cctactctct acccatcccc cgaccagagc
1500
tttgccttg cttggctgcc cgctgcctc tttggggaac tgagctcgga ggcagggtgt
1560
tcagagaagg aaacaaaatg aggggtggca gggataaaaa gtcacctcca ttctctacct
1620
cccatgcagc atgaacacaa tttctctcca cctggctccc aaattt
1666

```

<210> 2736

<211> 218

<212> PRT

<213> Homo sapiens

<400> 2736

```

Met Ala Lys Gln Tyr Asp Val Leu Phe Arg Leu Leu Leu Ile Gly Asp
 1          5          10          15
Ser Gly Val Gly Lys Thr Cys Leu Leu Cys Arg Phe Thr Asp Asn Glu
 20          25          30
Phe His Ser Ser His Ile Ser Thr Ile Gly Val Asp Phe Lys Met Lys
 35          40          45
Thr Ile Glu Val Asp Gly Ile Lys Val Arg Ile Gln Ile Trp Asp Thr
 50          55          60
Ala Gly Gln Glu Arg Tyr Gln Thr Ile Thr Lys Gln Tyr Tyr Arg Arg
 65          70          75          80
Ala Gln Gly Ile Phe Leu Val Tyr Asp Ile Ser Ser Glu Arg Ser Tyr
 85          90          95
Gln His Ile Met Lys Trp Val Ser Asp Val Asp Glu Tyr Ala Pro Glu
100          105          110
Gly Val Gln Lys Ile Leu Ile Gly Asn Lys Ala Asp Glu Glu Gln Lys

```

115	120	125
Arg Gln Val Gly Arg Glu Gln Gly Gln Gln Lys Cys Pro Ser Leu Gln		
130	135	140
Leu Ala Lys Glu Tyr Gly Met Asp Phe Tyr Glu Thr Ser Ala Cys Thr		
145	150	155
Asn Leu Asn Ile Lys Glu Ser Phe Thr Arg Leu Thr Glu Leu Val Leu		
165	170	175
Gln Ala His Arg Lys Glu Leu Glu Gly Leu Arg Met Arg Ala Ser Asn		
180	185	190
Glu Leu Ala Leu Ala Glu Leu Glu Glu Glu Glu Gly Lys Pro Glu Gly		
195	200	205
Pro Ala Asn Ser Ser Lys Thr Cys Trp Cys		
210	215	

<210> 2737

<211> 898

<212> DNA

<213> Homo sapiens

<400> 2737

```

nnaccggtat ggcgcacctg cgccggggtt ggccggccgat gtcaccggca ccgcatccgc
60
cgagcggagg agcagcctga ggagctgcgg aacaagattg tggaccagtg tgagaggctg
120
cagttacaga gtgtgccat caccagtat gtggcgagcgc tctgccggg gaagaatcaa
180
agagcagtgca gcatggccag tgcagcaggg gaactgggta tccagcgggt gagtctgggtg
240
aggagtcttt gcgagagcga ggagcagcgg ttactggaac aggtgcattgg cgaagaggag
300
cgggcccacc agagcatcct gacacagcgg gtgcaactgg ccgaggcgct gcagaaactt
360
gacaccatcc gcactggcct ggtgggcatg cttactcacc tggatgacct ccagctgatt
420
cagaaggagc aagagatttt cgagaggacc gaagaagcag agggcatttt ggatccccag
480
gagtcggaaa tggtaaactt taatgagaag tgcactcgga gccactact gacccaactc
540
tgggcaacgg cggttcttgg gtctctctca ggcacagagg acatacggtat cgatgagagg
600
acagtcagcc ccttctctga attgtcagat gatcgaaaga ccctgacctc agcaccaga
660
agtcaaagggt gtgcagatgg cccggagcgc ttcgaccact ggccaatgc cctggctgcc
720
acctctctcc agaattgggt ccatgcctgg atggtgaatg tccagaacag ttgtgcctat
780
aaggtggggc tggcttcagg ccacctgcc cgcaagggtt ctggcagtgat ctgcgcttg
840
ggccacaatg ccttctctg ggtcttctct cgtatgatc agggagtttcg tttctcac
898

```

<210> 2738

<211> 299

<212> PRT

<213> Homo sapiens

<400> 2738

Xaa Pro Val Cys Ala Thr Cys Ala Gly Phe Gly Gly Arg Cys His Arg
 1 5 10 15
 His Arg Ile Arg Arg Ala Glu Glu His Ala Glu Glu Leu Arg Asn Lys
 20 25 30
 Ile Val Asp Gln Cys Glu Arg Leu Gln Leu Gln Ser Ala Ala Ile Thr
 35 40 45
 Lys Tyr Val Ala Asp Val Leu Pro Gly Lys Asn Gln Arg Ala Val Ser
 50 55 60
 Met Ala Ser Ala Ala Arg Glu Leu Val Ile Gln Arg Leu Ser Leu Val
 65 70 75 80
 Arg Ser Leu Cys Glu Ser Glu Glu Gln Arg Leu Leu Glu Gln Val His
 85 90 95
 Gly Glu Glu Glu Arg Ala His Gln Ser Ile Leu Thr Gln Arg Val His
 100 105 110
 Trp Ala Glu Ala Leu Gln Lys Leu Asp Thr Ile Arg Thr Gly Leu Val
 115 120 125
 Gly Met Leu Thr His Leu Asp Asp Leu Gln Leu Ile Gln Lys Glu Gln
 130 135 140
 Glu Ile Phe Glu Arg Thr Glu Glu Ala Glu Gly Ile Leu Asp Pro Gln
 145 150 155 160
 Glu Ser Glu Met Leu Asn Phe Asn Glu Lys Cys Thr Arg Ser Pro Leu
 165 170 175
 Leu Thr Gln Leu Trp Ala Thr Ala Val Leu Gly Ser Leu Ser Gly Thr
 180 185 190
 Glu Asp Ile Arg Ile Asp Glu Arg Thr Val Ser Pro Phe Leu Gln Leu
 195 200 205
 Ser Asp Asp Arg Lys Thr Leu Thr Ser Ala Pro Arg Ser Gln Arg Cys
 210 215 220
 Ala Asp Gly Pro Glu Arg Phe Asp His Trp Pro Asn Ala Leu Ala Ala
 225 230 235 240
 Thr Ser Phe Gln Asn Gly Leu His Ala Trp Met Val Asn Val Gln Asn
 245 250 255
 Ser Cys Ala Tyr Lys Val Gly Val Ala Ser Gly His Leu Pro Arg Lys
 260 265 270
 Gly Ser Gly Ser Asp Cys Arg Leu Gly His Asn Ala Phe Ser Trp Val
 275 280 285
 Phe Ser Arg Tyr Asp Gln Glu Phe Arg Phe Ser
 290 295

<210> 2739

<211> 1501

<212> DNA

<213> Homo sapiens

<400> 2739

gagagccgcc gagagtgggg ggcgatggcg aagctccggg tggcttacga gtacacggaa
 60
 gccgaggaca agagcatccg gctcggcttg tttctcatca tctccggcgt cgtgtcgcgc
 120
 ttcctcttcg gcttctgctg gctgagtcgc gcgctgcagg atctgcgaag cacgagggcc
 180

aattgcacgg tgcgtgcggt gcagcagatc ggcgaggtgt tcgagtgcac cttcacctgt
240
ggcgccgact gcagggggcac ctgcagtac cctcgctcc aggtctacgt gaacaactct
300
gagttccaaact ctaggcgct gctgcacagc gacgagcacc agctcctgac caaccccaag
360
tgctctata tccctcctg taagagagaa aatcagaaga atttggaag tgtcatgaat
420
tggcaacagt actggaaga tgagattggt tccagccat ttacttgcta ttttaataca
480
catcaaaagac cagatgatgt gcttctgcat cgcactcatg atgagattgt cctctgcat
540
tgcttctct ggccctcggt gacatttggt gtggcgcttc tcattgtggt cctgaccatc
600
tgtgccaga gcttggcggt caaggcggaa gccatgaaga agcgcaagt ctcttaagg
660
ggaaggaggc ttgtagaaag caaagtacag aagctgtact catcggcacg cgtccactg
720
cggaacctgt gtttcttggt gcaggagatg gacaggcca cgacagggt ctgagaggct
780
catcctcag tggcaacaga aacaggcaca actggaagac ttggaacctc aaagcttgta
840
tccatctgc tgtagcaatg gctaagggt caagatctta gctgtatgga gtaactattt
900
cagaaaaacc tataagaagt tcattttct tcaaaagtaa cagtatatta tttgtacagt
960
gtagtataca aaccattatg atttatgcta cttaaaaata ttaaaataga tgggtctgtg
1020
ttattttcta tttcttttt tatgcttaga acaccagggt ttaaaaaa aaaaaagggtg
1080
aggacatctg ggtctcattt gcttctgcta ggttaaaact ttacttgaca acaaggattc
1140
ctgtgaagt ctgaacctta ctgtgtaacc ctgagttcc actattaaag agtatctttt
1200
gacgtctctg ttggaatatg aatagtatac tggttaactca gtctccagtc acctctgtgt
1260
ctcttaagca agagattcta aaagattggg aaacatatc ctccaaaacc tgcctttgcc
1320
taaccattat ttttcaccag attacttctt aagagagggg ggtgattctg aagaaggctt
1380
ctatctcaa aagcactggg ctctctatt catctgttct tgtgttttt gacggagtta
1440
aaaaagtttg tgtgcaatc aatataaatg atgtgaagga cactcttaaa aaaaaaaaaa
1500
a
1501

<210> 2740

<211> 218

<212> PRT

<213> Homo sapiens

<400> 2740

Glu Ser Arg Arg Glu Trp Gly Ala Met Ala Lys Leu Arg Val Ala Tyr

```

1           5           10           15
Glu Tyr Thr Glu Ala Glu Asp Lys Ser Ile Arg Leu Gly Leu Phe Leu
20
Ile Ile Ser Gly Val Val Ser Leu Phe Ile Phe Gly Phe Cys Trp Leu
35
Ser Pro Ala Leu Gln Asp Leu Gln Ala Thr Glu Ala Asn Cys Thr Val
50
Leu Ser Val Gln Gln Ile Gly Glu Val Phe Glu Cys Thr Phe Thr Cys
65
Gly Ala Asp Cys Arg Gly Thr Ser Gln Tyr Pro Cys Val Gln Val Tyr
85
Val Asn Asn Ser Glu Ser Asn Ser Arg Ala Leu Leu His Ser Asp Glu
100
His Gln Leu Leu Thr Asn Pro Lys Cys Ser Tyr Ile Pro Pro Cys Lys
115
Arg Glu Asn Gln Lys Asn Leu Glu Ser Val Met Asn Trp Gln Gln Tyr
130
Trp Lys Asp Glu Ile Gly Ser Gln Pro Phe Thr Cys Tyr Phe Asn Gln
145
His Gln Arg Pro Asp Asp Val Leu Leu His Arg Thr His Asp Glu Ile
165
Val Leu Leu His Cys Phe Leu Trp Pro Leu Val Thr Phe Val Val Gly
180
Val Leu Ile Val Val Leu Thr Ile Cys Ala Lys Ser Leu Ala Val Lys
195
Ala Glu Ala Met Lys Lys Arg Lys Phe Ser
210
215

```

<210> 2741

<211> 1487

<212> DNA

<213> Homo sapiens

<400> 2741

```

aaggctcgag ggaagtgag tgagatcatc aacaatgcca ttgtgcacta ccgagatgac
60
ttggatctgc agaacctcat tgattttggc cagaaaaagt ttagctgctg tggagggtatt
120
tcttacaagg actggtctca gaacatgtat ttcaactgct cagaagacaa cccagtcga
180
gagcgctgct ctgtgcotta ctctgtttgc ttgcctactc ctgaccaggc agtgcataac
240
actatgtgtg gccagggtat gcaggccttt gactacttgg aagctagcaa agtcatctac
300
accaatggct gtattgacaa gttggtcaac tggatacaca gcaacctatt cttacttggt
360
ggtgtggctc taggcctggc catccccag ctggtgggaa ttctgtgtc ccagatccta
420
gtgaatcaga tcaaagatca gatcaagcta cagctctaca accagcagca ccggggtgac
480
ccatgggtact gagaatccat cctgcacctc ctcaccatgg aaactggcaa gcctcataaa
540
cgaacagcag tgggtgtgta aagcagcacc aaatggagat ttggattcca gccccccagt
600

```

gacagccagcag tgggaagaag caaactccag atgggcagaa ggcagggtgc acaggtggct
 660
 ccagttctcag gaggatgcgc ctctctctccc ccateccagc cctcagcatt gtgccagagt
 720
 gataccctta agtgttttggg tttatgtttt cagttttgtt tgggaaacag cagttgcaca
 780
 gagagttggg ggtactgctg ctgccttttc accgaggcac tgccaccacc agctctagca
 840
 gggatgctcc tgagcttgge ggacatactt agatectaac gtgccagtga gacctggctg
 900
 tggagagtag cactggcagc cctgccttga ctccacttgg catgatacca gctccagaag
 960
 ggaagggaggt ggagcaggca gtgaggagag agcctggggg tggctggggg acagccgtat
 1020
 gtgctaggta ggagtgagg gagatatgtt taccaaatgc ctgtcctgcc atctctccag
 1080
 gtatgcagag tgagctacat cctgccccgc ctctatttcc atggaaacat ggcagctagg
 1140
 acacggggta tacaacagca gccaaattct tccccacctc ccttacttcg aaaaaaagt
 1200
 tggaaacctg gtccctatac tctgcagtc gaagtgggac tgagccatac atgcccctga
 1260
 attctctcct gtctggccct cctctctcag caagcagggt tttctttaac ttggcagtg
 1320
 gcagaggaga agtggttaaca ccccccaccc attccctcgc atcgagctc agtattccta
 1380
 cagggttaaga ggtaggaatc ttgctgggac gaggggagcc agaagtggca ataaaaagct
 1440
 gttgacctgg gcaaaaaaaaa aaaaaaaaaa aaagaaaaaa aaaaaa
 1487

<210> 2742

<211> 163

<212> PRT

<213> Homo sapiens

<400> 2742

Lys Ala Arg Gly Lys Val Ser Glu Ile Ile Asn Asn Ala Ile Val His
 1 5 10 15
 Tyr Arg Asp Asp Leu Asp Leu Gln Asn Leu Ile Asp Phe Gly Gln Lys
 20 25 30
 Lys Phe Ser Cys Cys Gly Gly Ile Ser Tyr Lys Asp Trp Ser Gln Asn
 35 40 45
 Met Tyr Phe Asn Cys Ser Glu Asp Asn Pro Ser Arg Glu Arg Cys Ser
 50 55 60
 Val Pro Tyr Ser Cys Cys Leu Pro Thr Pro Asp Gln Ala Val Ile Asn
 65 70 75 80
 Thr Met Cys Gly Gln Gly Met Gln Ala Phe Asp Tyr Leu Glu Ala Ser
 85 90 95
 Lys Val Ile Tyr Thr Asn Gly Cys Ile Asp Lys Leu Val Asn Trp Ile
 100 105 110
 His Ser Asn Leu Phe Leu Leu Gly Gly Val Ala Leu Gly Leu Ala Ile
 115 120 125
 Pro Gln Leu Val Gly Ile Leu Leu Ser Gln Ile Leu Val Asn Gln Ile

130	135	140
Lys Asp Gln Ile Lys Leu Gln Leu Tyr Asn Gln Gln His Arg Ala Asp		
145	150	155
Pro Trp Tyr		160

<210> 2743

<211> 384

<212> DNA

<213> Homo sapiens

<400> 2743

ngaattctcc cctcgccctc ccgagactcg ggtgtcctgt ctccccccgg agcctcccaa
 60
 gactccgggtg tccagtctcc gcccgagacc tccagagact ggagtgtccc atctccgccc
 120
 acagcctccc aagactcagg tctccagtct ccacctggag cctccagaga ctggagtgtc
 180
 ccattctcgc ccagagccta ccaagactga ggtgtccagt ctccacctgg agcctcccca
 240
 gactggagtg gccatctct acctggagcc tectggggact ggagtgtctc atctctgccc
 300
 agagcctccc aagactcgcg tatctcatct ccctcgggag cctcctgaga ctggagtgc
 360
 tgatctctgc ctggagcctc ccaa
 384

<210> 2744

<211> 69

<212> PRT

<213> Homo sapiens

<400> 2744

Xaa	Ile	Leu	Pro	Ser	Ala	Ser	Arg	Asp	Ser	Gly	Val	Leu	Ser	Pro	Pro
1				5					10				15		
Gly	Ala	Ser	Gln	Asp	Ser	Gly	Val	Gln	Ser	Pro	Pro	Gly	Ala	Ser	Arg
		20					25					30			
Asp	Trp	Ser	Val	Pro	Ser	Pro	Pro	Thr	Ala	Ser	Gln	Asp	Ser	Gly	Val
		35				40						45			
Gln	Ser	Pro	Pro	Gly	Ala	Ser	Arg	Asp	Trp	Ser	Val	Pro	Ser	Pro	Pro
		50				55					60				

Arg Ala Tyr Gln Asp
 65

<210> 2745

<211> 769

<212> DNA

<213> Homo sapiens

<400> 2745

gaattccacc ttccctcctg cagtgtctgag aggcagcgag gacggagagg acagcggcat
 60
 ctctaggctc ttctgagagg gacagagaaa gaatagaaat gtgcctataa agcataaatg
 120

agtatcacct gagaaaatta ggcattcccc tcttggaac acgtctctgt gagtttgcatt
 180
 ttcattttggc ttggagccct ggctcgatgc ctcattggatc tttctcccca aggggggacg
 240
 tcttgagggg tccgagcctc aggccaagga cccctgatgc agactctgga atccctggcc
 300
 caaaggcctg tctgggcccc tctggggctg aggacacaca gatacataat gacacctgca
 360
 gaaatgtatt ctctgaggac acctagaata tgaggaagag ggtgtggccc aacctcact
 420
 tcacctgggg aggggcttct tccggacagt agacacctg cccgtgcaga gagatgtcat
 480
 gggggcacct gctctccctg atagatgctg agagcatcca gaaacttcca gaccagccct
 540
 ctcaccacac ccagaagagg cctttcccat ctggagagaa gcttccagac cagcccttca
 600
 cacaccacag ccaggagggg cctttcccat ctgggagaga aacttccaga ccagccctc
 660
 ataccacagc caagaggggc ctttctcacc tggagagaaa cttccagacc agccccctac
 720
 accacagcca agaggggcct tcccccccg gagagaaact tccagacca
 769

<210> 2746

<211> 98

<212> PRT

<213> Homo sapiens

<400> 2746

Met Ser Trp Gly His Leu Leu Ser Leu Ile Asp Ala Glu Ser Ile Gln
 1 5 10 15
 Lys Leu Pro Asp Gln Pro Ser His His Thr Gln Lys Arg Pro Phe Pro
 20 25 30
 Ser Gly Glu Lys Leu Pro Asp Gln Pro Phe Thr His His Ser Gln Glu
 35 40 45
 Gly Pro Phe Pro Pro Gly Arg Glu Thr Ser Arg Pro Ala Pro His Thr
 50 55 60
 Thr Ala Lys Arg Gly Leu Ser His Leu Glu Arg Asn Phe Gln Thr Ser
 65 70 75 80
 Pro Ser His His Ser Gln Glu Gly Pro Phe Pro Pro Gly Glu Lys Leu
 85 90 95
 Pro Asp

<210> 2747

<211> 1100

<212> DNA

<213> Homo sapiens

<400> 2747

tttttcttct ccaggccag ggcgccgagc agtgccagc cccgctggga gccccggcca
 60
 gcaccacgga cggcgcccag gaagcccag tccccctgga cgggggcctt ctggattccg
 120

agggccccgg caggttcgco caagggctgc ttcgcttgcg tgtccaagcc cctcgccctg
 180
 cagggtccgg cggccccctgc ccctgagccc tcggcctctc ccccgatggc gccacactg
 240
 ttccccatgg agtccaagag cagcaagacc gacagcgtgc gggctgcccg cgcgccccct
 300
 gcctgcaagc acctagccga gaagaagacg atgaccaacc ccacgaccgt catcgaggtc
 360
 taccgggaca ccaccgaggt gaacgactat tacctgtggt ccactctcaa cttctctac
 420
 ctcaacttct gctgcctggg cttcatcgcc ttggcctact cctcaaaagt gcgagacaag
 480
 aagcttctca atgacctgaa tggagccgtg gaggatgcaa agacggcccc gctgttcaac
 540
 atcaccagtt ctgccctggc agcctcctgc atcatcctcg tcttcatctt cctgcggtae
 600
 cccctcacgg actactaagg cccgccaggc acgctgctg gcggagacaa gcactgagac
 660
 atgtttatct tcatgggtccc tgaacgcgag gatcccatga ggttggggca gggcagggtc
 720
 tcttgtcctg gggccccctt gagctgtgaa ctgggcagca aggccatcag aagctgagta
 780
 cagcaagggg gcagtgagct tggccctcag tccaccccc ccgcctcctg gctccaccce
 840
 tgcctgtgtc tggggccctg gggcttctcc cctcgtgtct gcaccctggc ttccagcgtc
 900
 tgtgtccctg cctcactgtg ccccttccca ggctcctggg gcccttgga cctgacacct
 960
 agcaggaagg gcttatgcaa aattgtccca ggttgggagg actcactctg tgctccccga
 1020
 cctgcctcc tccacgatgt gacccgctc agagcccttg tgtctgtgaa ctttcaatga
 1080
 aatacccatg cagctccaaa
 1100

<210> 2748

<211> 205

<212> PRT

<213> Homo sapiens

<400> 2748

Phe Phe Phe Ser Arg Pro Arg Ala Pro Ala Ser Ala Gln Pro Arg Trp
 1 5 10 15
 Glu Pro Arg Pro Ala Pro Arg Thr Ala Pro Arg Lys Pro Glu Ser Pro
 20 25 30
 Trp Thr Gly Ala Phe Trp Ile Pro Arg Pro Pro Ala Gly Ser Pro Lys
 35 40 45
 Gly Cys Phe Ala Cys Val Ser Lys Pro Pro Ala Leu Gln Ala Pro Ala
 50 55 60
 Ala Pro Ala Pro Glu Pro Ser Ala Ser Pro Pro Met Ala Pro Thr Leu
 65 70 75 80
 Phe Pro Met Glu Ser Lys Ser Ser Lys Thr Asp Ser Val Arg Ala Ala
 85 90 95
 Gly Ala Pro Pro Ala Cys Lys His Leu Ala Glu Lys Lys Thr Met Thr

Asn	Pro	Thr	100	Thr	Val	Ile	Glu	Val	105	Tyr	Pro	Asp	Thr	Thr	Glu	Val	Asn	110
			115						120									125
Asp	Tyr	Tyr	Leu	Trp	Ser	Ile	Phe	Asn	Phe	Val	Tyr	Leu	Asn	Phe	Cys			
			130						135									140
Cys	Leu	Gly	Phe	Ile	Ala	Leu	Ala	Tyr	Ser	Leu	Lys	Val	Arg	Asp	Lys			
145						150					155				160			
Lys	Leu	Leu	Asn	Asp	Leu	Asn	Gly	Ala	Val	Glu	Asp	Ala	Lys	Thr	Ala			
						165					170				175			
Arg	Leu	Phe	Asn	Ile	Thr	Ser	Ser	Ala	Leu	Ala	Ala	Ser	Cys	Ile	Ile			
						180					185				190			
Leu	Val	Phe	Ile	Phe	Leu	Arg	Tyr	Pro	Leu	Thr	Asp	Tyr						
			195						200						205			

<210> 2749

<211> 2050

<212> DNA

<213> Homo sapiens

<400> 2749

```

nnacgcgtgt cctgaacct acctgcgctt cttgtcccaa ctctaaaatg ggaatgataa
60
gcccattcgc gcagcgctt gtgggtctat aatctactta gcacagagag tgtcttctaa
120
gtacttcaca tccttctctg cagatgtctt gacctttgac cctgccgctt cagctctagg
180
gcccggtgcag gccacacat gaacacctcc ccaggcacgg tgggcagtga cccggctcatc
240
tgggccactg caggctacga ccacaccgtg cgcttctggc aggccacagc cggcctctgc
300
accgggacgg tgcagcacca ggactcccag gtgaatgcct tggagggtcac accggaccgc
360
agcatgattg ctgctgcagt tcagcctgtg tccctagggt accagcacat ccgcatgtat
420
gatctcaact ccaataaccc taaccccatc atcagctacg acggcgctcaa caagaacatc
480
gcgtctgtgg gcttccacga agacggcgcg tggatgtaca cggggcgcgca ggactgcaca
540
gccaggatct gggacctcag gtcccggaac ctgcagtgcg agcggatctt ccagggtgaac
600
gcacccatta actgcgtgtg cctgcacccc aaccaggcag agctcatcgt gggtgaccag
660
agcggggcta tcacatctg ggaacttgaaa acagaccaca acgagcagct gatccctgag
720
cccgaggctc ccatcacgtc cgccacatc gatcccgacg ccagctacat ggcagctgtc
780
aatagcaccg gaaactgcta tgtctggaat ctgacggggg gcattggtga cgaggtgacc
840
cagctcatcc ccaagactaa gatccctgcc cacacgcgct acgccttgca gtgtgccttc
900
agcccgact ccacgctcct cgccactgcg tcggctgacg agacgtgcaa gatctggagg
960
acgtccaact tctcctgat gacggagctg agcatcaaga gcggcaaccc cggggagctc
1020

```


tccccgggct ggatgtgggg ctgcgccttc tcggggggaact cccagtagat cgtcactgct
 1080
 tcctcggaca acctggcccc gctctgggtg gtggagactg gagagatcaa gagagagtat
 1140
 ggccggccacc agaaggctgt tgtctgcctg cccttcaatg acagtgtgct gggctagcct
 1200
 gtgacccctc gggactgcct ggtgcagggt gtggcagctg gagggaccca tgcagacccc
 1260
 aggtcagagc agaccctccc ctgcggcgct cgcgccagct gacctgatgg cccctgtggt
 1320
 cgcccttgacc tgctggggcca ggctgccctg ggactctcag cccccagtgt cttatccaga
 1380
 tgtgacagag ctgcacccaa gccaggctgc acactcctgg actgggctag cctgcactgc
 1440
 ctgggaaaagt cggccgaggg cccaaagctg ctgaggggtc tgaggctggt gcccaccccc
 1500
 aagctagtgt gttctctgcc cctccctgcc cgcgtttcag ggcctcggtc catagagaac
 1560
 accaccacca tggccagggt gaagggttta ttagtccctg ccagcagctg tctcctctgg
 1620
 tgcaggtggc ctggccagcc cactggattg gggacgggcc aggctggggc aggtcggggg
 1680
 ctacgtcttg gagtgataaa aagcagaccg acacgcagat gttgctcggg aagcagatgt
 1740
 cgatgcagag ataaatcagc cgctgtctcc ggggcccctc tgctcgcggg gccccagtaga
 1800
 tgggggtcct catgcacagg cgctgcacca aagccccgcg ctgggcggta gccacttaag
 1860
 aggtccccc ctactgccag cagctcctgg gtgtggtggg tgtcctggct ggggacccaa
 1920
 gcctcttgga ccttgagggt atccaccagc agccgcaggt ctcccgatca ctgtcttcca
 1980
 tcaggcggag gaagcagacc tgggtgctct cagggcggtg acagatgcag ccgctctgcc
 2040
 cgtcgaacag
 2050

<210> 2750

<211> 332

<212> PRT

<213> Homo sapiens

<400> 2750

Met	Asn	Thr	Ser	Pro	Gly	Thr	Val	Gly	Ser	Asp	Pro	Val	Ile	Leu	Ala
1			5					10					15		
Thr	Ala	Gly	Tyr	Asp	His	Thr	Val	Arg	Phe	Trp	Gln	Ala	His	Ser	Gly
		20						25				30			
Ile	Cys	Thr	Arg	Thr	Val	Gln	His	Gln	Asp	Ser	Gln	Val	Asn	Ala	Leu
		35				40					45				
Glu	Val	Thr	Pro	Asp	Arg	Ser	Met	Ile	Ala	Ala	Ala	Val	Gln	Pro	Val
	50				55				60						
Ser	Leu	Gly	Tyr	Gln	His	Ile	Arg	Met	Tyr	Asp	Leu	Asn	Ser	Asn	Asn
65				70					75				80		
Pro	Asn	Pro	Ile	Ile	Ser	Tyr	Asp	Gly	Val	Asn	Lys	Asn	Ile	Ala	Ser

```

      85              90              95
Val Gly Phe His Glu Asp Gly Arg Trp Met Tyr Thr Gly Gly Glu Asp
      100              105              110
Cys Thr Ala Arg Ile Trp Asp Leu Arg Ser Arg Asn Leu Gln Cys Gln
      115              120              125
Arg Ile Phe Gln Val Asn Ala Pro Ile Asn Cys Val Cys Leu His Pro
      130              135              140
Asn Gln Ala Glu Leu Ile Val Gly Asp Gln Ser Gly Ala Ile His Ile
      145              150              155
Trp Asp Leu Lys Thr Asp His Asn Glu Gln Leu Ile Pro Glu Pro Glu
      160              165              170
Val Ser Ile Thr Ser Ala His Ile Asp Pro Asp Ala Ser Tyr Met Ala
      175              180              185
Ala Val Asn Ser Thr Gly Asn Cys Tyr Val Trp Asn Leu Thr Gly Gly
      190              195              200
Ile Gly Asp Glu Val Thr Gln Leu Ile Pro Lys Thr Lys Ile Pro Ala
      205              210              215
His Thr Arg Tyr Ala Leu Gln Cys Arg Phe Ser Pro Asp Ser Thr Leu
      220              225              230
Leu Ala Thr Cys Ser Ala Asp Gln Thr Cys Lys Ile Trp Arg Thr Ser
      235              240              245
Asn Phe Ser Leu Met Thr Glu Leu Ser Ile Lys Ser Gly Asn Pro Gly
      250              255              260
Glu Ser Ser Arg Gly Trp Met Trp Gly Cys Ala Phe Ser Gly Asp Ser
      265              270              275
Gln Tyr Ile Val Thr Ala Ser Ser Asp Asn Leu Ala Arg Leu Trp Cys
      280              285              290
Val Glu Thr Gly Glu Ile Lys Arg Glu Tyr Gly Gly His Gln Lys Ala
      295              300              305
Val Val Cys Leu Ala Phe Asn Asp Ser Val Leu Gly
      310              315              320
      325              330

```

<210> 2751

<211> 1877

<212> DNA

<213> Homo sapiens

<400> 2751

```

nntcatgagc cagcacaact gctccaagga tggccccacc tcgcagccac gctctgcgcac
60
gctccccacn ggccgggagac agccaggagc gctcggagac ccccagagatc tgccattacg
120
agaagagcgtt tcacaagcac tcggccaccc ccaactacac gcactgtggc ctcttcgggg
180
acccacacct caggactttc accgaccgct tccagacctg caaggtgcag ggcgcctggc
240
cgctcatcga caataattac ctgaactgic aggtcaccac cagcctgtg ctgcccgact
300
cagcggggcac tgcccaccagc aagctcacca tcatcttcaa gaacttcag gagtgtgtgg
360
accgaaggt gtaccaggct gagatggacg agctcccgcc cgccttcgtg gatggctcta
420
agaacggtgg ggacaagcac ggggccaaca gcctgaagat cactgagaag gtgtcaggcc
480

```

agcacgtgga gatccaggcc aagtacatcg gcaccaccat cgtggtgccc caggtgggcc
 540
 gctacactgac ctttgccgct cgcattgccag aggaagtggc caatgctgtg gaggactggg
 600
 acagccaggg tctctacctc tgcctgcccg gctgccccct caaccagcag atcgacttcc
 660
 aggccttcca caccaatgct gaggggaccc gtgcccgcag gctggcagcc gccagccctg
 720
 caccacacag ccccgagacc ttcccatcag agacagccgt ggccaagtgc aaggagaagc
 780
 tgccggtgga ggacctgtac taccaggcct gcgtcttcga cctcctcacc acggggcagc
 840
 tgaacttcac actggcgccc tactacgcgt tggaggatgt caagatgctc cactccaaca
 900
 aagacaaact gcacctgtat gagaggactc gggacctgcc aggcaggcgc gctgcggggc
 960
 tgcccttgge ccccgggccc ctctggggcg cctcgtgccg gctcctggcc ctgctccctg
 1020
 tgttctgcta gacgcgtaga tgtggaggga ggcggggggc cgtcctctc ggcttcccca
 1080
 tgtgtgggct gggaccgccc acgggggtgca gatctcctgg cgtgtccacc atggccccgc
 1140
 agaacgccag ggacgcctg ctgccaaagg ctcaggcatg gacccctccc ctcttagtgc
 1200
 acgtgacaag gttgtggtga ctgggtccgt gatgtttgac agtagagctg tgtgagaggg
 1260
 agagcagctc ccttcgcccc gccctcgacg tgtgaatgtg tgaacatccc cctcaggctg
 1320
 aagcccccca cccccaccag agacacactg ggaacctca gactcagctc ctccccctc
 1380
 gcaatgcact gaaaggcccg gccgactgct gctcgcgat ccgtggggcc cctgtgtccc
 1440
 gccacacgca cgcacacact cttacacgag agcacactcg atccccctag gccagcgggg
 1500
 acacccccag cacacaggga ggcatccttg gggcttggcc ccaggcaggg caacccccgg
 1560
 gcgctgcttg gcaccttagc agactgctgg aaccttttg ccagtaggtc gtgcccgcct
 1620
 ggtgccttct ggcctgtggc ctccctgccc atgttcacct ggctgctgtg ggtacagtg
 1680
 cagggtcccg ttttcaggca cctgctcage tgcccgctc tggcctgggc cctgcccctt
 1740
 ccacctgtg cttagaagaat cgaagtgtt ggtctctaat gtctaaacag agaagagatc
 1800
 cttgacttct gtctctctcc ctctgcaga tgcaagagct cctggggcag ggggtcctgg
 1860
 ggccccaggg tgttggc
 1877

<210> 2752

<211> 87

<212> PRT

<213> Homo sapiens

<400> 2752

Xaa His Glu Pro Ala Gln Leu Leu Gln Gly Trp Pro His Leu Ala Ala
 1 5 10 15
 Thr Pro Ala His Ala Pro Thr Xaa Pro Glu Thr Ala Arg Ser Ala Arg
 20 25 30
 Thr Ala Pro Arg Ser Ala Ile Thr Arg Arg Ala Phe Thr Ser Thr Arg
 35 40 45
 Pro Pro Pro Thr Thr Arg Thr Val Ala Ser Ser Gly Thr His Thr Ser
 50 55 60
 Gly Leu Ser Pro Thr Ala Ser Arg Pro Ala Arg Cys Arg Ala Pro Gly
 65 70 75 80
 Arg Ser Ser Thr Ile Ile Thr
 85

<210> 2753

<211> 2561

<212> DNA

<213> Homo sapiens

<400> 2753

nngccgctctt cagatgactt ctgtcggatg cctcctccct gtagtgattc ctgtgacttt
 60
 gatgacccca ggctgttgaa gaacattgag gatcgccatc ccacagcccc ttgcattcag
 120
 gaggttctca ccttcttggc cgtgtgccac acggttgttc ctgagaagga tggagataac
 180
 atcatctacc aggcctcttc ccagatgaa gctgctttgg tgaaggagc taaaagctg
 240
 ggctttgtct tcacagccag aacaccattc tcagtcacatc tagaagcgat gggacaggaa
 300
 caaacatttg gaatccttaa tgccttgaa tttctagtgc acagaaaaag aatgtctgta
 360
 attgttcgaa ctctctcagg acgacttcgg ctttactgta aaggggctga taatgtgatt
 420
 ttgagagac tttcaaaaga ctcaaaatat atggaggaaa cattatgccat tctggaatac
 480
 ttgcccacgg aaggcttgcg gactctctgt gtggcttatg ctgatctctc tggaggcaat
 540
 gagtatgagg agtgggtgaa agtctatcag gaagccagca ccattatgaa ggacagagct
 600
 caacgggttg aagagtgtta cgagatcatt gagaagaatt tgctgctact tggagccaca
 660
 gccatagaag atcgccctca agcaggagtt ccagaaacca tcgcaacact gttgaaggca
 720
 gaaattaaaa tatgggtgtt gacaggagac aaacaagaaa ctgcgattaa tatagggtat
 780
 tcctgccgat tgggtatgca gaatatggcc cttatcctat tgaaggggga ctctctggat
 840
 gccacaaggg cagccattac tcagcaactgc actgaccttg ggaatttgct gggcaaggaa
 900
 aatgacgttg cctcatcat cgatggccac accctgaagt acgcgctctc ctctogaagt
 960
 cggaggaggt tcctggattt ggcactctcg tgcaaaagcg tcatatgctg cagagtgtct
 1020

cctctgcaga agtctgagat agtggatgtg gtgaagaagc ggggtgaaggc catcacccctc
 1080
 gccatcggag acggcgccaa cgatgtcggg atgatccaga cagcccacgt ggggtgtggga
 1140
 atcagtgga atgaaggcat gcaggccacc aacaactcgg attacgcoat cgcacagtgtt
 1200
 tcctacttag agaagcttct gttggttcat ggagcctgga gctacaaccg ggtgaccaag
 1260
 tgcattctgt actgcttcta taagaacgtg gtccgtgtata ttattgagct ttggttcgcc
 1320
 tttgttaatg gattttcttg gcagatttta tttagaactt ggtgcatcgg cctgtacaat
 1380
 gtgattttca cgcctttgcc gcccttcact ctgggaatct ttgagaggtc ttgcactcag
 1440
 gagagcatgc tcagggtttcc ccagctctac aaaatcaccg agaatggcga aggcctcaac
 1500
 acaaagggtt tctgggttca ctgcatcaac gccttggtcc actccctcat cctcttcttg
 1560
 ttcccatga aagctctgga gcatgatact gtgttgacaa gtggtcatgc taccgactat
 1620
 ttattgttg gaaatattgt ttacacatat gttgttgta ctgtttgtct gaaagctggt
 1680
 ttggagacca cagcttggac taaattcagt catctggctg tctggggaaag catgctgacc
 1740
 tggctgggtg tttttggcat ctactcgacc atctggccca ccattcccat tgctccagat
 1800
 atgagaggac aggcactat ggtcctgagc tccgcacact tctggttggg attatttctg
 1860
 gttcctactg cctgtttgat tgaagatgtg gcattggagag cagccaagca cactcgcaa
 1920
 aagacattgc tggaggaggt gcaggagctg gaaaccaagt ctcgagtcct gggaaaagcg
 1980
 gtgctgcggg atagcaatgg aaagaggctg aacgagcgcg accgcctgat caagaggctg
 2040
 ggccggaaga cgcctccgac gctgttcggg ggcagctccc tgcagcaggg cgtcccgcat
 2100
 ggggtatgct tttctcaaga agaaccgga gctgttagtc aggaagaagt catcgtgtct
 2160
 tatgacacca ccaaaaagaa atccaggag aaataagaca tgaattttcc tgactgatct
 2220
 taggaaagag attcagtttg ttgcaccag tgtaaacaca tctttgtcag agaagactgg
 2280
 cgtcagcagc caaaacacca ggaacacat ttctgtggcc tttagccaagc agtttgttag
 2340
 ttacatatcc cctcgcaaac ctggagtgtc gaccacaggg gaagctatct ttgccctccc
 2400
 aactcgtctg cagtgccttag cctaactttt gtttatgtcg ttatgaagca ttcaactgtg
 2460
 ctctgtgagg tgtgaaatta aaaacattat gtttcaccaa taacaaaaaa aaaaaaaa
 2520
 aaaaaaaa aaaaaaaa aaaaaaaa aaaaaaaa a
 2561

<210> 2754

<211> 731

<212> FRT

<213> Homo sapiens

<400> 2754

Xaa Pro Ser Ser Asp Phe Cys Arg Met Pro Pro Pro Cys Ser Asp
 1 5 10 15
 Ser Cys Asp Phe Asp Asp Pro Arg Leu Leu Lys Asn Ile Glu Asp Arg
 20 25 30
 His Pro Thr Ala Pro Cys Ile Gln Glu Phe Leu Thr Leu Leu Ala Val
 35 40 45
 Cys His Thr Val Val Pro Glu Lys Asp Gly Asp Asn Ile Ile Tyr Gln
 50 55 60
 Ala Ser Ser Pro Asp Glu Ala Ala Leu Val Lys Gly Ala Lys Lys Leu
 65 70 75 80
 Gly Phe Val Phe Thr Ala Arg Thr Pro Phe Ser Val Ile Ile Glu Ala
 85 90 95
 Met Gly Gln Glu Gln Thr Phe Gly Ile Leu Asn Val Leu Glu Phe Ser
 100 105 110
 Ser Asp Arg Lys Arg Met Ser Val Ile Val Arg Thr Pro Ser Gly Arg
 115 120 125
 Leu Arg Leu Tyr Cys Lys Gly Ala Asp Asn Val Ile Phe Glu Arg Leu
 130 135 140
 Ser Lys Asp Ser Lys Tyr Met Glu Glu Thr Leu Cys His Leu Glu Tyr
 145 150 155 160
 Phe Ala Thr Glu Gly Leu Arg Thr Leu Cys Val Ala Tyr Ala Asp Leu
 165 170 175
 Ser Glu Gly Asn Glu Tyr Glu Glu Trp Leu Lys Val Tyr Gln Glu Ala
 180 185 190
 Ser Thr Ile Leu Lys Asp Arg Ala Gln Arg Leu Glu Glu Cys Tyr Glu
 195 200 205
 Ile Ile Glu Lys Asn Leu Leu Leu Gly Ala Thr Ala Ile Glu Asp
 210 215 220
 Arg Leu Gln Ala Gly Val Pro Glu Thr Ile Ala Thr Leu Leu Lys Ala
 225 230 235 240
 Glu Ile Lys Ile Trp Val Leu Thr Gly Asp Lys Gln Glu Thr Ala Ile
 245 250 255
 Asn Ile Gly Tyr Ser Cys Arg Leu Val Ser Gln Asn Met Ala Leu Ile
 260 265 270
 Leu Leu Lys Gly Asp Ser Leu Asp Ala Thr Arg Ala Ala Ile Thr Gln
 275 280 285
 His Cys Thr Asp Leu Gly Asn Leu Leu Gly Lys Glu Asn Asp Val Ala
 290 295 300
 Leu Ile Ile Asp Gly His Thr Leu Lys Tyr Ala Leu Ser Phe Glu Val
 305 310 315 320
 Arg Arg Ser Phe Leu Asp Leu Ala Leu Ser Cys Lys Ala Val Ile Cys
 325 330 335
 Cys Arg Val Ser Pro Leu Gln Lys Ser Glu Ile Val Asp Val Val Lys
 340 345 350
 Lys Arg Val Lys Ala Ile Thr Leu Ala Ile Gly Asp Gly Ala Asn Asp
 355 360 365
 Val Gly Met Ile Gln Thr Ala His Val Gly Val Gly Ile Ser Gly Asn
 370 375 380
 Glu Gly Met Gln Ala Thr Asn Asn Ser Asp Tyr Ala Ile Ala Gln Phe

```

385          390          395          400
Ser Tyr Leu Glu Lys Leu Leu Leu Val His Gly Ala Trp Ser Tyr Asn
          405          410          415
Arg Val Thr Lys Cys Ile Leu Tyr Cys Phe Tyr Lys Asn Val Val Leu
          420          425          430
Tyr Ile Ile Glu Leu Trp Phe Ala Phe Val Asn Gly Phe Ser Gly Gln
          435          440          445
Ile Leu Phe Glu Arg Trp Cys Ile Gly Leu Tyr Asn Val Ile Phe Thr
          450          455          460
Ala Leu Pro Pro Phe Thr Leu Gly Ile Phe Glu Arg Ser Cys Thr Gln
          465          470          475          480
Glu Ser Met Leu Arg Phe Pro Gln Leu Tyr Lys Ile Thr Gln Asn Gly
          485          490          495
Glu Gly Phe Asn Thr Lys Val Phe Trp Gly His Cys Ile Asn Ala Leu
          500          505          510
Val His Ser Leu Ile Leu Phe Trp Phe Pro Met Lys Ala Leu Glu His
          515          520          525
Asp Thr Val Leu Thr Ser Gly His Ala Thr Asp Tyr Leu Phe Val Gly
          530          535          540
Asn Ile Val Tyr Thr Tyr Val Val Val Thr Val Cys Leu Lys Ala Gly
          545          550          555          560
Leu Glu Thr Thr Ala Trp Thr Lys Phe Ser His Leu Ala Val Trp Gly
          565          570          575
Ser Met Leu Thr Trp Leu Val Phe Phe Gly Ile Tyr Ser Thr Ile Trp
          580          585          590
Pro Thr Ile Pro Ile Ala Pro Asp Met Arg Gly Gln Ala Thr Met Val
          595          600          605
Leu Ser Ser Ala His Phe Trp Leu Gly Leu Phe Leu Val Pro Thr Ala
          610          615          620
Cys Leu Ile Glu Asp Val Ala Trp Arg Ala Ala Lys His Thr Cys Lys
          625          630          635          640
Lys Thr Leu Leu Glu Glu Val Gln Glu Leu Glu Thr Lys Ser Arg Val
          645          650          655          660
Leu Gly Lys Ala Val Leu Arg Asp Ser Asn Gly Lys Arg Leu Asn Glu
          660          665          670
Arg Asp Arg Leu Ile Lys Arg Leu Gly Arg Lys Thr Pro Pro Thr Leu
          675          680          685
Phe Arg Gly Ser Ser Leu Gln Gln Gly Val Pro His Gly Tyr Ala Phe
          690          695          700
Ser Gln Glu Glu His Gly Ala Val Ser Gln Glu Glu Val Ile Arg Ala
          705          710          715          720
Tyr Asp Thr Thr Lys Lys Lys Ser Arg Lys Lys
          725          730

```

<210> 2755

<211> 4795

<212> DNA

<213> Homo sapiens

<400> 2755

```

attcgggtcat atagagatgt catgaagttg tgtgctgctc atctccctac tgaatcagat
60
gcaccaaatac attatcaggc agtatgtcgt gcaactgtttg cagaacaacat ggagctccat
120

```

acattttctga ccaaaattaa gaggcgaaa gagaatttta agaagattca agaaatggaa
180
aagagcgatg aatctagcac agacttgaaa gagctgaaaa acgctgactg ggcacgattc
240
tgggtacagg tgatgagggg tttgaggaaat ggggtaaaaa ttaagaaggt ccaagagcgg
300
cagtacaacc ctttgcccat tgaatatcag ctcacccctt atgagatgtt aatggatgac
360
attcgctgca aaagatacac cttgcgaaaa gtgatggatg atggatgat tccccctcgg
420
ttaaaaaaga gtgctcatga aatcatcctc gacttcatca gatccagacc tcttttaaat
480
ccagtctcag ccagaaaact gaaaccaact ccaccacggc caccgagcct ccatgaaaga
540
atattagaag aaattaaagc agaagaagaa ctgcggcctg tatccaccga ggagattaga
600
cgtagcagat tagatgtgac tacccttgaa tctacaaga atcttggtga gtcattctatg
660
gtgaatggag gtttgacatc acaaacaaaa gaaacgggt taagtacctc acagcagggtg
720
cctgcacagc ggaagaagct cctcagagcc ccaactcttg ccgaactgga cagctctgag
780
tctgaggaa gaaacgctgca caagtcgacc agcagcagca gcgtgtctcc ctctttccct
840
gaagagccag tcttgagggc cgtgtccaca aggaagaagc ctccaaaatt cctgcccata
900
tcatcaaac cccagccaga gagacggcag ccaccccaga gacgacattc cattgaaaag
960
gaaacgccta ctaacgtgag gcagttcctg ccgccttcca ggcagagttc ccgctctctt
1020
gaggaaattct gctacccagt ggaatgcctc gctcttactg tggaagaagt gatgcatatt
1080
cgccaggctc tgggtgaaggc agagctggaa aaataccaac agtataaaga catctacacc
1140
gccttgaaaa aaggaaaagct ctgcttttgt tgccgaacca ggagggtttc ctcttctcact
1200
tgggtcttata cctgtcagtt ctgtaagagg ccggtgtgct cacagatgtt caaaaagatg
1260
cggctgcctt ccaaaccata ctccactctt cctatctttt cattgggacc ttctgtctctg
1320
caaagagggg aaagtagtat gaggtcagaa aaaccctcca ctgccatca tcggccactt
1380
cggagcattg ccagggttctc ctcaaatctt aagtctatgt acaaatcaga tgaagaatc
1440
cagtttccca aagagttgat ggaggactgg agcaccatgg aggtgtgtgt ggaactgcaag
1500
aagttcattt cggaatcat cagttcaagc cggcgagctg tgggtttggc caacaaaagg
1560
gcccgattga aaagggaaaac gcagttcttc tacatgtctc cgcagggccc ctccggagtac
1620
tgcccttcag agaggacgat cagtgagatc tgagcctcgt gcctttcagc tgccttttgtg
1680
ctacagatca gcgtccgtgc gcgaggacac tgagccgggc tggctctcct ttctgtggtt
1740

ttatttaattg ggcctgaatt tgcattagat cagatttttg ccgcatcaca ttgttcaca
1800
gactgaatgc tgtgttcgta tgcattgatg aaacgtgaca ggccgcgcaa ttgctcgttt
1860
gcactgagag aggacaacag ttgaaactt actttttagt gtgtgtggct ttggaagcca
1920
gtactactt ccttagttca gttctttact gtctctcgaa taatctcctg actaaggcaa
1980
aaaaaaaaag cttctcctac gagaatcagt ctaacagaga tgccgatgtc agcacagccc
2040
taagcagtaa gtcatattgg catttccacg tgactgtgt tctatccctg gtacagagag
2100
atccagagcc ctacactcca cgacctgggg gctcacagca cagaacctag aagcacctgc
2160
tgacactctt caactgattt ttaaatgttg ttgcttggag ataaaaatta cataagggac
2220
tttttgcctg cattctagtg caaaacatct gaagagctgt acaccacaaa ggggtactat
2280
ttccctgag tggccgtgtt gtcccagtg cctggttcag tgtctcctga gtggatgaca
2340
ggctcttctt ctctatcttg aatgtattat ggttactaat agttttataa tggagggtcta
2400
agaattaaag ttgtgtggga gtttcaggac aaagggaagg taaaagtgt tcaagacgtt
2460
gagcgtattt tgggttaccta tgagaagggt tgtgacagtg tacagtggca gctgttggcc
2520
acgctgcaga aatgagctgg agctcatggg ttttcagcta catttttcat aactttgtag
2580
tacctccatc ttgagtaaat taagccacaa tttggtacct aggggtctca actaaaattt
2640
atttttataa atgaatttta aaagaaaaaa tatctacttc ttttaaagtt agaagaaaat
2700
taacctgctg acaggcaaca tttttgggtt gctttctgca ctagttttcc ttgtaaatga
2760
tttgagttag taggtttggt ttctgacgaa agtagactgg agggtagcat tgbatgcctc
2820
aaatgtctca gtgtgtttgg ctcatactgt ggctatactt tattattttg gtatgcttac
2880
aaatgactaa ccaatcaaat tgtcattaat gtttggaata tctgttaatg cacatgcaca
2940
ataatttcct gaaagccata ggacatgtct gtagtcagca ccacgatagc accgtttcat
3000
gaaaggcatg gcggctgcat ttcataccac atcaaaaatac agtaacattt ctatactaaa
3060
ttaaagtaga tacctcaaaa ctgctccggt agtagttttt aatggattga aatttacagt
3120
ttagtataaag gcttaaaatt acttatactt atgaaaaata ctttaccagt tgactaaaat
3180
aatgcactgtt aacagtgtgt ctgtatttgc atgtaaaagt gggccaccag agaaccctta
3240
ttgattactt aagtgtttac attattttaa agactcctgt ttaagagctt tcagaattgt
3300
actgggtgaa tctcatttat aaaacttcct aagagactat ctgaactcta tactccagac
3360

agttaggtgg gagtataaat ctaccccttt tggtagcccc aggcttgagt ttttaaaatg
 3420
 actacccaga agggcacaag ggggaaggaa atggtatttg tatatgtata taaatatgca
 3480
 cctaggagaa tgtgtttttt aaaataatga ctactgtttt tattaaaaa taagaaacta
 3540
 ccccccaa ataagacttt cattcacatt cacaagcaa acatctagta catgtctttc
 3600
 acttcacttt atgatagtg atgggatgat ttgggcatta cgatcacctc ttaccacagc
 3660
 acagaacata cattcttcaa cagcattaac ggagtttgc aagtgcatla aagaggtcac
 3720
 gtggagggtta cgttcatatg aaacaatctg cagaaagtgg ggtaagaaag ggcacatggc
 3780
 acagttaaa tttgtagaaat caaattacta tcattttttg ttgcaaaaac aaagtcttac
 3840
 atttaacccc cctttctacc acccccctc cactctcac gtcagctaca tagttctcac
 3900
 agggtaattc actaagagct tggggagctt gggtttaaaa tccttagcct ggtctgactt
 3960
 taggcatagc ttccagttct tccttccttg tcctggtttc ttgttcagct tttacttcta
 4020
 atccaacaac aaaagaaatg tctggctggt ctcagctaga gtctgatgtg tcttagagca
 4080
 tgtgtgcgta tctgaacat catcctctgt ctcactcac ctcctccag gctgagcac
 4140
 cggttccctt tgtcccatc gtcatgaagt cactacttg ggaacctgt gcttcctct
 4200
 ccattggctta actcctctgc agtgctggag tgtataagaa tgcttgtaaa tactgttaata
 4260
 tatttattaa tatttgaaag gcattcattc agtggacagt gggaattaac tctcccaagg
 4320
 caagtgaata tgaatgattg acgtacgttg atttaacaat ctactagat ttaattctt
 4380
 aaggatttca aatgaaacca gaagggtgt atgtaagagg cttaaaatga tcttatgttt
 4440
 aaagagattc tgttatttag accatgaact cgtactatga aatttttaag ccttttattt
 4500
 tttcaactat attactgtag gactggatat taggtgtcat ataggaaaca caaaagttat
 4560
 tgctgtttgc taaagcaaaa tagcagaaaa ttttgtatat gcaaaactgt tgaaggacca
 4620
 tagagaaatg tgtactactg acggggcttt tactaggctt cctgcgtgtg taaagtcga
 4680
 ggtattgctg gcaattcaggg tgacatgatg gtactaaatg ttttccatta aagtcttcta
 4740
 ttttaaaatt tagagaaaaa taaatggct ttcctgcag aaaaaaaaaa aaaaa
 4795

<210> 2756

<211> 550

<212> PRT

<213> Homo sapiens

<400> 2756

```

Ile Arg Ser Tyr Arg Asp Val Met Lys Leu Cys Ala Ala His Leu Pro
1      5      10
Thr Glu Ser Asp Ala Pro Asn His Tyr Gln Ala Val Cys Arg Ala Leu
20     25     30
Phe Ala Glu Thr Met Glu Leu His Thr Phe Leu Thr Lys Ile Lys Ser
35     40     45
Ala Lys Glu Asn Leu Lys Lys Ile Gln Glu Met Glu Lys Ser Asp Glu
50     55     60
Ser Ser Thr Asp Leu Glu Glu Leu Lys Asn Ala Asp Trp Ala Arg Phe
65     70     75     80
Trp Val Gln Val Met Arg Asp Leu Arg Asn Gly Val Lys Leu Lys Lys
85     90     95
Val Gln Glu Arg Gln Tyr Asn Pro Leu Pro Ile Glu Tyr Gln Leu Thr
100    105    110
Pro Tyr Glu Met Leu Met Asp Asp Ile Arg Cys Lys Arg Tyr Thr Leu
115    120    125
Arg Lys Val Met Val Asn Gly Asp Ile Pro Pro Arg Leu Lys Lys Ser
130    135    140
Ala His Glu Ile Ile Leu Asp Phe Ile Arg Ser Arg Pro Pro Leu Asn
145    150    155    160
Pro Val Ser Ala Arg Lys Leu Lys Pro Thr Pro Pro Arg Pro Arg Ser
165    170    175
Leu His Glu Arg Ile Leu Glu Glu Ile Lys Ala Glu Arg Lys Leu Arg
180    185    190
Pro Val Ser Pro Glu Glu Ile Arg Arg Ser Arg Leu Asp Val Thr Thr
195    200    205
Pro Glu Ser Thr Lys Asn Leu Val Glu Ser Ser Met Val Asn Gly Gly
210    215    220
Leu Thr Ser Gln Thr Lys Glu Asn Gly Leu Ser Thr Ser Gln Gln Val
225    230    235    240
Pro Ala Gln Arg Lys Lys Leu Leu Arg Ala Pro Thr Leu Ala Glu Leu
245    250    255
Asp Ser Ser Glu Ser Glu Glu Glu Thr Leu His Lys Ser Thr Ser Ser
260    265    270
Ser Ser Val Ser Pro Ser Phe Pro Glu Glu Pro Val Leu Glu Ala Val
275    280    285
Ser Thr Arg Lys Lys Pro Pro Lys Phe Leu Pro Ile Ser Ser Thr Pro
290    295    300
Gln Pro Glu Arg Arg Gln Pro Pro Gln Arg Arg His Ser Ile Glu Lys
305    310    315    320
Glu Thr Pro Thr Asn Val Arg Gln Phe Leu Pro Pro Ser Arg Gln Ser
325    330    335
Ser Arg Ser Leu Glu Glu Phe Cys Tyr Pro Val Glu Cys Leu Ala Leu
340    345    350
Thr Val Glu Glu Val Met His Ile Arg Gln Val Leu Val Lys Ala Glu
355    360    365
Leu Glu Lys Tyr Gln Gln Tyr Lys Asp Ile Tyr Thr Ala Leu Lys Lys
370    375    380
Gly Lys Leu Cys Phe Cys Cys Arg Thr Arg Arg Phe Ser Phe Phe Thr
385    390    395    400
Trp Ser Tyr Thr Cys Gln Phe Cys Lys Arg Pro Val Cys Ser Gln Cys
405    410    415
Cys Lys Lys Met Arg Leu Pro Ser Lys Pro Tyr Ser Thr Leu Pro Ile

```

```

                420                425                430
Phe Ser Leu Gly Pro Ser Ala Leu Gln Arg Gly Glu Ser Ser Met Arg
      435                440                445
Ser Glu Lys Pro Ser Thr Ala His His Arg Pro Leu Arg Ser Ile Ala
      450                455                460
Arg Phe Ser Ser Lys Ser Lys Ser Met Asp Lys Ser Asp Glu Glu Leu
465                470                475                480
Gln Phe Pro Lys Glu Leu Met Glu Asp Trp Ser Thr Met Glu Val Cys
      485                490                495
Val Asp Cys Lys Lys Phe Ile Ser Glu Ile Ile Ser Ser Ser Arg Arg
      500                505                510
Ser Leu Val Leu Ala Asn Lys Arg Ala Arg Leu Lys Arg Lys Thr Gln
      515                520                525
Ser Phe Tyr Met Ser Ser Pro Gly Pro Ser Glu Tyr Cys Pro Ser Glu
      530                535                540
Arg Thr Ile Ser Glu Ile
545                550

```

<210> 2757

<211> 449

<212> DNA

<213> Homo sapiens

<400> 2757

```

ggcagcggca gggacttttc acttaggaga tcagcatttg ccctgatgga aactggggca
60
tcctgcaggg actgacctct gagttatcca aaggccgacc tggggaaaga ctgattttga
120
ggttttaata gttttcagat gottcaagtg ttgtgaacag agacttgttt ggattatgca
180
tttctcagct agactaaata aatgctagca atggatacgt gcaaacaatgt tgggcagctg
240
cagcttgctc aagaccattc cagcctcaac cctcagaaat ggactgtgt ggactgcaac
300
acgaccgagt ccatttgggc ttgccttagc tgctcccatg ttgcctgtgg aagatatatt
360
gaagagcatg cactcaagca ctttcaagaa agcagtcacg ctgttgccatt ggaggtgaat
420
gagatgtacg tttttgttta cctttgtga
449

```

<210> 2758

<211> 82

<212> PRT

<213> Homo sapiens

<400> 2758

```

Met Leu Ala Met Asp Thr Cys Lys His Val Gly Gln Leu Gln Leu Ala
  1                5                10                15
Gln Asp His Ser Ser Leu Asn Pro Gln Lys Trp His Cys Val Asp Cys
      20                25                30
Asn Thr Thr Glu Ser Ile Trp Ala Cys Leu Ser Cys Ser His Val Ala
      35                40                45
Cys Gly Arg Tyr Ile Glu Glu His Ala Leu Lys His Phe Gln Glu Ser

```

```

      50              55              60
Ser His Pro Val Ala Leu Glu Val Asn Glu Met Tyr Val Phe Cys Tyr
65              70              75              80
Leu Cys

```

<210> 2759
 <211> 688
 <212> DNA
 <213> Homo sapiens

```

<400> 2759
taccgaagtc ctttcgccc caggccaagc cagcagccta ccacagaagg tggggatggt
60
gagaccaagc ccagccaagg tcccgctgat gggtcccggc ctgagcccca gcgcccacga
120
aacgcgccct acttcagcg gagacggcag caggccctctg gccccacga ggcctctggc
180
cccggcagc ccgcagcccc tgagacctca gcccctgtca acagtgggga cccaccacc
240
accatctctg agtgattcca actcaactca aaggacaccc agagctgcca tctggtatct
300
gccagttttt ccaaatgacc tgtacctac ccagtacctt gctccccctt tcccataatt
360
catgacatca aaacatcagc ttttcacctt ttccttgaga ctcaggaggg ccaagcaac
420
agcctttggc tttttctct ttttcttccc tctccctag catgggttga aggaaggag
480
ccatccttac tgttcagaga cagcaactcc ctcccgtaac tcaggctgag aaggaaccag
540
ccagctctta cctcctctg gttgcttttc ttgccccac ccaagtta tttttgtttt
600
ccccggccc cctacctctg aagccatttt atgatctgtc atgtgccacc tgagcctcca
660
gtaaaaacaa aaacaggaaa aaaaaaaaa
688

```

<210> 2760
 <211> 84
 <212> PRT
 <213> Homo sapiens

```

<400> 2760
Tyr Arg Ser Pro Phe Arg Pro Arg Pro Arg Gln Gln Pro Thr Thr Glu
1      5      10      15
Gly Gly Asp Gly Glu Thr Lys Pro Ser Gln Gly Pro Ala Asp Gly Ser
20      25      30
Arg Pro Glu Pro Gln Arg Pro Arg Asn Arg Pro Tyr Phe Gln Arg Arg
35      40      45
Arg Gln Gln Ala Pro Gly Pro Gln Gln Ala Pro Gly Pro Arg Gln Pro
50      55      60
Ala Ala Pro Glu Thr Ser Ala Pro Val Asn Ser Gly Asp Pro Thr Thr
65      70      75      80
Thr Ile Leu Glu

```

<210> 2761

<211> 922

<212> DNA

<213> Homo sapiens

<400> 2761

acgcgtgaag ggccacaggt atctgaaaat tgcagaaaa cagaattaag tgatggaaaa
 50
 agtattgaac cagggggaat agacattacc cttagtagtt ctctttccca ggcgggtgat
 120
 ccataactg agggcaataa agagccagat aagacctggg tgaanaaggg agagccccctc
 180
 ccggtaaaac tgaactcttc tacagaagca aatgtgatta aagaggctct agactcctct
 240
 ttggaaatcta ctctggacaa cagctgtcaa ggtgcacaaa tggataataa atctgaagtt
 300
 cagttgtggc tggttaagag aattcaggta ccattgaag atatacttcc ttcaaaagaa
 360
 gaaaaaagca agacccccacc catgttctct tgcataaag tgggaaaacc aatgagaaaa
 420
 tcctttgcc ctcacactgc agccatggct cagcagtacg gcaaacggag aaagcagcca
 480
 gagtactggt ttgctgttcc tcgggagagg gtggatcatt tgtacacatt ctttgttcag
 540
 tggctctccg atgtctatgg aaaagatgcc aaagagcaag gctttgtggt ggtggagaag
 600
 gaagaactga acatgattga caactcttc agtgagccaa caaccaagag ctgggagatc
 660
 atcactgttg aagaggcaaa gcgcaggaag agcacatgca gctactatga agacaggagc
 720
 gaagaggtgc tgccctgtct ccggcccccc agggcgttct gggagaataa gccctgaac
 780
 cgctgggccc gcccttttcc tgcaagggtg caagggtatc catggagatg ggcctatagc
 840
 acgttagagc acgggaccag cttaaagacg ctctaccgga aatcggcatc actagacagt
 900
 cctgtcctat tggatcatca ag
 922

<210> 2762

<211> 307

<212> FRT

<213> Homo sapiens

<400> 2762

Thr Arg Glu Gly Pro Gln Val Ser Glu Asn Leu Gln Lys Thr Glu Leu
 1 5 10 15
 Ser Asp Gly Lys Ser Ile Glu Pro Gly Gly Ile Asp Ile Thr Leu Ser
 20 25 30
 Ser Ser Leu Ser Gln Ala Gly Asp Pro Ile Thr Glu Gly Asn Lys Glu
 35 40 45
 Pro Asp Lys Thr Trp Val Lys Lys Gly Glu Pro Leu Pro Val Lys Leu

```

50          55          60
Asn Ser Ser Thr Glu Ala Asn Val Ile Lys Glu Ala Leu Asp Ser Ser
65          70          75          80
Leu Glu Ser Thr Leu Asp Asn Ser Cys Gln Gly Ala Gln Met Asp Asn
85          90          95
Lys Ser Glu Val Gln Leu Trp Leu Leu Lys Arg Ile Gln Val Pro Ile
100          105          110
Glu Asp Ile Leu Pro Ser Lys Glu Glu Lys Ser Lys Thr Pro Pro Met
115          120          125
Phe Leu Cys Ile Lys Val Gly Lys Pro Met Arg Lys Ser Phe Ala Thr
130          135          140
His Thr Ala Ala Met Val Gln Gln Tyr Gly Lys Arg Arg Lys Gln Pro
145          150          155          160
Glu Tyr Trp Phe Ala Val Pro Arg Glu Arg Val Asp His Leu Tyr Thr
165          170          175
Phe Phe Val Gln Trp Ser Pro Asp Val Tyr Gly Lys Asp Ala Lys Glu
180          185          190
Gln Gly Phe Val Val Val Glu Lys Glu Glu Leu Asn Met Ile Asp Asn
195          200          205
Phe Phe Ser Glu Pro Thr Thr Lys Ser Trp Glu Ile Ile Thr Val Glu
210          215          220
Glu Ala Lys Arg Arg Lys Ser Thr Cys Ser Tyr Tyr Glu Asp Glu Asp
225          230          235          240
Glu Glu Val Leu Pro Val Leu Arg Pro Pro Arg Ala Phe Trp Glu Asn
245          250          255
Lys Pro Leu Asn Arg Trp Ala Arg Pro Phe Pro Ala Arg Val Gln Gly
260          265          270
Tyr Pro Trp Arg Leu Ala Tyr Ser Thr Leu Glu His Gly Thr Ser Leu
275          280          285
Lys Thr Leu Tyr Arg Lys Ser Ala Ser Leu Asp Ser Pro Val Leu Leu
290          295          300
Val Ile Lys
305

```

<210> 2763

<211> 2210

<212> DNA

<213> Homo sapiens

<400> 2763

```

gtgttttttt ttgtgcaaag aaagcttttt atttgagaac acctagatata ttttgaaat
60
gttcctgttg gatcacaac aacctaatg acagtctatc gccaacatcc acaaacacag
120
caaacagtcc agtcctgcag accacacagg gtacatctag aggggttctac ttgcataccc
180
cacacttcca ctctctgtgaa acaactgtct tgggcatgag aagggccagg ataggccagg
240
tgaatggcag gctgccaac aacccaatc ccaaaccaac ctcccaggcc atgggcccac
300
gtccctgcag gaagatgcta ataggtacaa caggtagaac atgtagacac aaacatctag
360
tttatttttt ctgactgtaa ccaaagtcag caaaagaaac acaaaaactt cagtgcctta
420

```

gaaatcctcc tggattcaat gacaacacat caatggccgg gcacagggtt ggattccttt
480
tatgaaatca ccttataate tctcatcacc ccaggacagt gccttttggg actgcatgaa
540
tcttttaaat ctacaccaca ttttctcacc cttaagtta tgacagacag gttatctctc
600
tccaagagca tcaggtaga tgcctcttca ctcttacaaa ctgtcagggtg gagggagaat
660
cacgacatca ttcataaata actgtggagt ctgggatgct ggctgaaggc atctccaggaa
720
aggactggag ggcgattttg cttaaaggct gctcactgct catttctactg catgccgctt
780
ttctcacttt ggttgggagt ttgaaggacc atgtaatcac agagattaga gtcctctgtg
840
aaatcaatca ctgccttttag atctccacaa agacctgttc tccaatagca catgcgtttc
900
tctgtgagct gtattcgcac cagcgccgga gcctcagaaa gaatgcgtgt ttacactctg
960
tacttcccaa tgggtaatat ttatcataga aatctaatac atattcttca gtcttgaate
1020
caaaactctg gtacagtagc atagcggggt tgccttctga gacgtgaagg gttacgtctc
1080
tgcccatgca ggtctgaatc agatgataga tcatgaaagt tgcaatccct gctcttctcc
1140
attcagggtg gacgaacaga aatgaaatgt aagcttcatt gtatttcaca tcaggaacca
1200
tgaagccaaa ggcaatgatg acttttttat aaagaacaac aacactgaag tctgggtact
1260
gcagacactc agacagggtc atgccaggcc aaaaaaactc ctgacacatg gagttgatcg
1320
ttgggatgtg atttggccgc acataacagt aatcgagagg tgcgtcgggc tccgctgtcc
1380
agtgagggtc gctcctgtgc aggtgggaac gaatctgtga caggagctgc agtttgggtg
1440
gctttgtttc ataatacgcg ctgataaag gtttcaagat ccgagaggta taagggtctga
1500
caatactctg gtccacagcc atatcttctg atcctaccaa gcgatacaaa aacttggtgg
1560
cttgggtctg aaatcccttc ctggacggca aggaagtctg gtatcgggtc aggattctga
1620
agtcctgaca ggtgggtctg tacgtggett gtccagctgg aagtcggaa attcctcctt
1680
ctttggctcc ataaatcccg tcaactaaca aaagagcagc attaacaact tgatccaaagt
1740
caaaaagtgg taatccctta tccctttctg cttgtctgac aatcagtttg cgtttcagtc
1800
tccgagcttc cggagtcacg gcaacagcac cgggacaagc ttcagcctc ttgagcagca
1860
gcttttcttc ttagatgctc acgggagtat acctgggctc tttcggtttt gtgtccttct
1920
ccagctgagg cttcctcttt tctctagccc ttgtttgcaa agatgtgttt gaatctgtgt
1980
cttctctgct aatatccatc ctgtcgggtt tttctctctc actctctacc tctgtctta
2040

tctgttcagg gcctctgacc ttctttctgc ccccaaccac tggcccagaa gctactgacc
 2100
 cagcaggggg tgggacgtac tccatccctg ggtctatgac tccatcgct tccatctcat
 2160
 cgtcatcatg aaacaaggct tgtgggggca tcacatctgg aatcagatct
 2210

<210> 2764

<211> 423

<212> PRT

<213> Homo sapiens

<400> 2764

Met	Pro	Pro	Gln	Ala	Leu	Phe	His	Asp	Asp	Asp	Glu	Met	Glu	Gly	Asp
1				5					10				15		
Gly	Val	Ile	Asp	Pro	Gly	Met	Glu	Tyr	Val	Pro	Pro	Pro	Ala	Gly	Ser
			20					25					30		
Val	Ala	Ser	Gly	Pro	Val	Val	Gly	Gly	Arg	Lys	Lys	Val	Arg	Gly	Pro
			35				40					45			
Glu	Gln	Ile	Lys	Gln	Glu	Val	Glu	Ser	Glu	Glu	Glu	Lys	Pro	Asp	Arg
	50				55						60				
Met	Asp	Ile	Asp	Ser	Glu	Asp	Thr	Asp	Ser	Asn	Thr	Ser	Leu	Gln	Thr
	65				70				75				80		
Arg	Ala	Arg	Glu	Lys	Arg	Lys	Pro	Gln	Leu	Glu	Lys	Asp	Thr	Lys	Pro
			85					90				95			
Lys	Glu	Pro	Arg	Tyr	Thr	Pro	Val	Ser	Ile	Tyr	Glu	Glu	Lys	Leu	Leu
		100						105				110			
Leu	Lys	Arg	Leu	Glu	Ala	Cys	Pro	Gly	Ala	Val	Ala	Met	Thr	Pro	Glu
		115				120					125				
Ala	Arg	Arg	Leu	Lys	Arg	Lys	Leu	Ile	Val	Arg	Gln	Ala	Lys	Arg	Asp
	130				135					140					
Arg	Gly	Leu	Pro	Leu	Phe	Asp	Leu	Asp	Gln	Val	Val	Asn	Ala	Ala	Leu
	145				150				155					160	
Leu	Leu	Val	Asp	Gly	Ile	Tyr	Gly	Ala	Lys	Glu	Gly	Gly	Ile	Ser	Arg
			165				170						175		
Leu	Pro	Ala	Gly	Gln	Ala	Thr	Tyr	Arg	Thr	Thr	Cys	Gln	Asp	Phe	Arg
		180					185					190			
Ile	Leu	Asp	Arg	Tyr	Gln	Thr	Ser	Leu	Pro	Ser	Arg	Lys	Gly	Phe	Arg
		195				200					205				
His	Gln	Thr	Thr	Lys	Phe	Leu	Tyr	Arg	Leu	Val	Gly	Ser	Glu	Asp	Met
	210				215						220				
Ala	Val	Asp	Gln	Ser	Ile	Val	Ser	Pro	Tyr	Thr	Ser	Arg	Ile	Leu	Lys
	225				230					235				240	
Pro	Tyr	Ile	Arg	Arg	Asp	Tyr	Glu	Thr	Lys	Pro	Pro	Lys	Leu	Gln	Leu
			245					250					255		
Leu	Ser	Gln	Ile	Arg	Ser	His	Leu	His	Arg	Ser	Asp	Pro	His	Trp	Thr
		260				265						270			
Pro	Glu	Pro	Asp	Ala	Pro	Leu	Asp	Tyr	Cys	Tyr	Val	Arg	Pro	Asn	His
		275				280						285			
Ile	Pro	Thr	Ile	Asn	Ser	Met	Cys	Gln	Glu	Phe	Phe	Trp	Pro	Gly	Ile
	290				295					300					
Asp	Leu	Ser	Glu	Cys	Leu	Gln	Tyr	Pro	Asp	Phe	Ser	Val	Val	Val	Leu
			310						315					320	
Tyr	Lys	Lys	Val	Ile	Ile	Ala	Phe	Gly	Phe	Met	Val	Pro	Asp	Val	Lys

```

          325          330          335
Tyr Asn Glu Ala Tyr Ile Ser Phe Leu Phe Val His Pro Glu Trp Arg
          340          345          350
Arg Ala Gly Ile Ala Thr Phe Met Ile Tyr His Leu Ile Gln Thr Cys
          355          360          365
Met Gly Lys Asp Val Thr Leu His Val Ser Ala Ser Asn Pro Ala Met
          370          375          380
Leu Leu Tyr Gln Lys Phe Gly Phe Lys Thr Glu Glu Tyr Val Leu Asp
          385          390          395          400
Phe Tyr Asp Lys Tyr Tyr Pro Leu Glu Ser Thr Glu Cys Lys His Ala
          405          410          415
Phe Phe Leu Arg Leu Arg Arg
          420

```

```

<210> 2765
<211> 582
<212> DNA
<213> Homo sapiens

```

```

<400> 2765
tctgggtgtg gaggcttatt attcaccact ttggcagggtg tctcagtggtc ttacttaccc
60
ttgttatccc cactggtgct cggctgtctgg ctggcccaca aacatgttct catagtcggg
120
agtggaggggg caggatggca cgcccacttg gggcttgggg gcgctccggc tgccgtaccg
180
tggtctgaag cctaaaccgg gcttggggccc atcctgagca gccacagggt ttgtcagctc
240
ccggcttctg gccactcggc atcgccagag tctccaggcc agcacagggc cagcgtatggc
300
aagtccaaga agcaggcacc cgctgaccac cactgccccg atagttgcag aggccaggcc
360
agggggcgag ctgacctcca ggaaggcaga gaggttgtgc tgggagctgg ttgtgtccca
420
gcagagcaga ggcttctggc cagagcagtt gtctcggcgg atgtcgtgcc aggactccag
480
ggcacagttg cagtggcct gcaggccaag gtcacacggc gcggccacgc ccccatccac
540
acgagacaag gggttgcgta gcacgttcag gacctcaagc tt
582

```

```

<210> 2766
<211> 100
<212> PRT
<213> Homo sapiens

```

```

<400> 2766
Met Gly Arg Trp Pro Pro Ala Val Thr Leu Thr Cys Arg Pro Thr Ala
1          5          10          15
Thr Val Pro Trp Ser Pro Gly Thr Thr Ser Ala Glu Thr Thr Ala Leu
20          25          30
Ala Arg Ser Leu Cys Ser Ala Gly Thr Gln Pro Ala Pro Ser Thr Thr
35          40          45
Ser Leu Pro Ser Trp Arg Ser Ala Ala Pro Leu Ala Trp Pro Leu Gln

```

50		55		60	
Leu	Ser	Gly	Gln	Trp	Trp
65				70	
Ser	Leu	Ala	Leu	Cys	Trp
				85	
Glu	Ala	Gly	Ser		
				100	

<210> 2767

<211> 1202

<212> DNA

<213> Homo sapiens

<400> 2767

```

gaattccctca ttgataactg ctttgaataa tttggggaga acattccagt gcattccagt
60
atcattcttg atgactccct ggagcacact gacagtccag atgtgtcgac cctgcagaat
120
gactcagcct acgacagcaa cgaccctgat gtggaatcca acagcagcag tggcatcagc
180
tctccagca ggcagcccca ggtgcccctg gccacagctg ctggccttga tagcgcgggc
240
ccacaggatg cccgagagggt cagcccagag cccattgtga gcaccgtggc caggctgaaa
300
agctccctcg cacagccoga taggagatac tcagagccca gcatgccatc ctcccaggag
360
tgccctcgaga gccgggtgac aaaccaaa ctaacaaaga gtgaaggggga ctccccctg
420
ccccgggtag gctctcgttt ggaaagtga gaggctgaay acccatttcc agaggagggtc
480
ttccctgcag tgcaaggcaa aaccaagagg ccggtggacc tgaagatcaa gaacttggcc
540
ccgggttcgg tctccccg ggcaactggt ctcaaacctc tctccagcag ctgcctggac
600
gcgtcctctg acagctcgcc cgtggcttct ccttccagtc ccaaaagaaa tttcttcagc
660
agacatcagt ttttcaccac aaagacagag aaaggcaagc ccagccgaga aattaaaaag
720
cactccatgt ttttcacctt tgcccctcac aaaaagtgc tgacaaaaaa cctcagcgcg
780
ggctctggga aatcgcaaga ctttaccagg gaccacgtcc cgagggtgtg cagaaggaa
840
agccagcttg ccggccgaat cgtgcaggaa aatgggtgtg aaaccacaaa ccaaacagcc
900
cgcggttctt gcctgagacc ccacgcccct tcggtggatg atgtgttcca gggagctgac
960
tgggagaggc ctggaagccc accctcttat gaagaggcca tgcagggccc ggcagccaga
1020
ctagtggcct cccagcaatt tcaatttcta gcttgacact aaaatggtta tttttcagta
1080
acggggggag aagtggggag gcagagtgtg aagggaata aaaccaatta gtaattttta
1140
actatcaaat gcactccagc aatcagtaa aacaggcccc aggaaacctg ttccaactta
1200

```

ag

1202

<210> 2768

<211> 282

<212> PRT

<213> Homo sapiens

<400> 2768

```

Met Ala Thr Ala Ala Gly Leu Asp Ser Ala Gly Pro Gln Asp Ala Arg
 1           5           10           15
Glu Val Ser Pro Glu Pro Ile Val Ser Thr Val Ala Arg Leu Lys Ser
      20           25           30
Ser Leu Ala Gln Pro Asp Arg Arg Tyr Ser Glu Pro Ser Met Pro Ser
 35           40           45
Ser Gln Glu Cys Leu Glu Ser Arg Val Thr Asn Gln Thr Leu Thr Lys
 50           55           60
Ser Glu Gly Asp Phe Pro Val Pro Arg Val Gly Ser Arg Leu Glu Ser
 65           70           75           80
Glu Glu Ala Glu Asp Pro Phe Pro Glu Glu Val Phe Pro Ala Val Gln
      85           90           95
Gly Lys Thr Lys Arg Pro Val Asp Leu Lys Ile Lys Asn Leu Ala Pro
 100          105          110
Gly Ser Val Leu Pro Arg Ala Leu Val Leu Lys Ala Phe Ser Ser Ser
 115          120          125
Ser Leu Asp Ala Ser Ser Asp Ser Ser Pro Val Ala Ser Pro Ser Ser
 130          135          140
Pro Lys Arg Asn Phe Phe Ser Arg His Gln Ser Phe Thr Thr Lys Thr
 145          150          155          160
Glu Lys Gly Lys Pro Ser Arg Glu Ile Lys Lys His Ser Met Ser Phe
      165          170          175
Thr Phe Ala Pro His Lys Lys Val Leu Thr Lys Asn Leu Ser Ala Gly
 180          185          190
Ser Gly Lys Ser Gln Asp Phe Thr Arg Asp His Val Pro Arg Gly Val
 195          200          205
Arg Lys Glu Ser Gln Leu Ala Gly Arg Ile Val Gln Glu Asn Gly Cys
 210          215          220
Glu Thr His Asn Gln Thr Ala Arg Gly Phe Cys Leu Arg Pro His Ala
 225          230          235          240
Leu Ser Val Asp Asp Val Phe Gln Gly Ala Asp Trp Glu Arg Pro Gly
      245          250          255
Ser Pro Pro Ser Tyr Glu Glu Ala Met Gln Gly Pro Ala Ala Arg Leu
 260          265          270
Val Ala Ser Gln Gln Phe Gln Phe Leu Ala
      275          280

```

<210> 2769

<211> 1286

<212> DNA

<213> Homo sapiens

<400> 2769

```

atctgcaaca tgtacaccat gtacagcatg atgaacgtcg gccagacagc cgagaagggtg
60

```

gaggcctcc cggagcaggt agcccccgag tccgaaatc gcatccgggt tcggcaagac
 120
 ctggcgtctc tcccggtcga acttatcaac cagattggga accgctgccca cccaagctc
 180
 tacgacgagg gogaccctc tgagaagctg gagctggtga caggcaccaa cgtgtacatc
 240
 acaagggcgc agctgatgaa ctgccacgtc agcgcaggca cgcggcacaa ggtcctactg
 300
 cggcggtctc tggcctcctt ctttgaccgg aacacgctgg ccaacagctg cggcacccgc
 360
 atccgctctt ctaccaacga tccccgtcgg aagccccctg acagccgcgt gctccacgtt
 420
 gtcaagtact actgccagaa ctctgcccc aacttcaagg agagcgagat gaatgccatc
 480
 gcggccgaca tgtgcaccaa cggcccgccg gtcgtgcgca agagctggat gcccaaggtc
 540
 aaggctgctc aggctgagga tgacgcctac accaccttca tcagtgaaac gggcaagatc
 600
 gagcccgaca tgatgggtgt ggagcatggc ttcgagaccg ccagccacga gggcgaggcg
 660
 ggtccccatc ctgaagccct gcagtaaccc gccacgctc ccgcggggcc gcacacttcc
 720
 cctcccaaca cacacacaca cctgccatct tggctcatgag ctactgtctg tccctcccca
 780
 ggaccgcggg tgggtgctgc atgttcccg cctctgccc ctctgtctct acccccttcc
 840
 cccacggaga gctgggcccg gagaggaccg cagggcaggt ggcgtgaggt ccgtgttgcc
 900
 ttctttaaca cacactcgtg cagtggggga gttctggctc cccaacctaa cccctagccg
 960
 tcactccac actcaccagg cccaccaggg gagggggctg gcctgggggt cttgggaagg
 1020
 cccctcccca ggccnaggc caccctcgcg aagccttcag cctccgcccc tcactgcagc
 1080
 ccttgaggac ttgagggggg cccaggggt tctcaggacc cctccacca cctccagtg
 1140
 cttccacgtc tccaaaagcg cttctctgct accctcgtct atccctgcgc ctgggggctg
 1200
 gggtaggcga ggccgtgggg actaccatt ttatagctgg ggaacaggc tccgagaat
 1260
 tgacaaaccg acctcaggtg gccggc
 1286

<210> 2770

<211> 228

<212> PRT

<213> Homo sapiens

<400> 2770

Ile Cys Asn Met Tyr Thr Met Tyr Ser Met Met Asn Val Gly Gln Thr
 1 5 10 15
 Ala Glu Lys Val Glu Ala Leu Pro Glu Gln Val Ala Pro Glu Ser Arg
 20 25 30
 Asn Arg Ile Arg Val Arg Gln Asp Leu Ala Ser Leu Pro Ala Glu Leu

```

      35              40              45
Ile Asn Gln Ile Gly Asn Arg Cys His Pro Lys Leu Tyr Asp Glu Gly
   50              55              60
Asp Pro Ser Glu Lys Leu Glu Leu Val Thr Gly Thr Asn Val Tyr Ile
   65              70              75              80
Thr Arg Ala Gln Leu Met Asn Cys His Val Ser Ala Gly Thr Arg His
      85              90              95
Lys Val Leu Leu Arg Arg Leu Leu Ala Ser Phe Phe Asp Arg Asn Thr
      100              105              110
Leu Ala Asn Ser Cys Gly Thr Gly Ile Arg Ser Ser Thr Asn Asp Pro
      115              120              125
Arg Arg Lys Pro Leu Asp Ser Arg Val Leu His Ala Val Lys Tyr Tyr
      130              135              140
Cys Gln Asn Phe Ala Pro Asn Phe Lys Glu Ser Glu Met Asn Ala Ile
   145              150              155              160
Ala Ala Asp Met Cys Thr Asn Ala Arg Arg Val Val Arg Lys Ser Trp
      165              170              175
Met Pro Lys Val Lys Val Leu Lys Ala Glu Asp Asp Ala Tyr Thr Thr
      180              185              190
Phe Ile Ser Glu Thr Gly Lys Ile Glu Pro Asp Met Met Gly Val Glu
   195              200              205
His Gly Phe Glu Thr Ala Ser His Glu Gly Glu Ala Gly Pro Ile Ala
      210              215              220
Glu Ala Leu Gln
225

```

<210> 2771

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 2771

```

gtgatctgca tgtggcaggg ctgocagctg gagcgccag tgggcaggat gacgagccag
   60
acccctctgc cccagtcctc ccggcccagg cggccaaoga tgtctactgt tgtggagctg
   120
aacgtcgggg gtgagttcca caccaccacc ctgggtaccg tgaggagatt tccgggtcca
   180
aagctggcag agatgtttct tagcttagcc aaggcctcca cggacgcgga gggcgccttc
   240
ttcatcgacc gccccagcac ctatttcaga cccatcctgg actacctgcy cactggggcaa
   300
gtgcccacac agcacatccc tgaagtgtac cgtgaggctc agttctacga aatcaagcct
   360
ttggtcaagc tgctggagga catgccacag atctttggtg agcaggtgtc tcggaagcag
   420
tttttgtgtc aagtgccggg ctacagcgag aacctggagc tcatgggtgc cctggcacgt
   480
gcagaagcca taacagcacg gaagtccagc gtgcttgtgt gcctgggtga aactgaggag
   540
caggatgcac attattcaga ggtcctgtgt tttctgcagg ataagaagat gttcaagctc
   600
gttgtcaagt ttgggccctg gaaggcggtc ctagacaaca gcgacctcat gcactgcctg
   660

```

gagatggaca ttaaggccca ggggtacaag gtattctcca agttctacct gacgtacccc
 720
 accaaaagaa acgaattcca ttttaacatt tattcattca ccttcacctg gtgggtgatcc
 780
 tcaggagcag agactgttat gaattctggc gtggccttatg aaattaaaag ttgccaatcaa
 840
 agccattttc ttttaatttc acaaacatca ggcaatttcc aggggtgggc tagagtcttg
 900
 ccactaaata ttgatcactc gtttaaggac ttccactcc attgcaactg atgccactat
 960
 atttgccatg caacttgcat cttcttccct tcaaaagcct catgtatctc ccagaccctt
 1020
 ctcttgaagt ccaataacaa gaccaagtaa gaatgtttca acaatgcgtt ggcaagagat
 1080
 gtgagatgac aacaggaaca tacaagatac tgtgaatcta gatgttctga cctaagatg
 1140
 tagttctacat agccccagct tgggggtccaa tccatctgtc cctggcatgt gccttcctgt
 1200
 agtaggtgct ttcttgatcc cttttgcgag atgctgtggg tgctaacacc tcagagctgt
 1260
 cctcttctct agagtggagg ttttcaaagt gcatcatcag cattacctgt gaacttgctg
 1320
 gaaatacaaa tcttcaggcc ccacctcaga cctactgaat cagaatctct ggggggtggc
 1380
 acagcattct gatttaccaa accctccaag tgattttgat gtattctaat tttagacca
 1440
 tctctagaaa agaattgcta cctcttgtat ggaggtagaa aagactgacc tcttacatca
 1500
 aggaacttcc ttcccagag ctctcatgg aatcaagctg aagtcagtct tcttctgaga
 1560
 gcacattctt actcagtttt ttcctctgt cctacgctgc ttcctcact ccccttctcc
 1620
 taagagcact ccatcaataa accacttgca cgagaaaaaa aaacaaa
 1668

<210> 2772

<211> 258

<212> PRT

<213> Homo sapiens

<400> 2772

Val Ile Cys Met Trp Gln Gly Cys Ala Val Glu Arg Pro Val Gly Arg
 1 5 10 15
 Met Thr Ser Gln Thr Pro Leu Pro Gln Ser Pro Arg Pro Arg Arg Pro
 20 25 30
 Thr Met Ser Thr Val Val Glu Leu Asn Val Gly Gly Glu Phe His Thr
 35 40 45
 Thr Thr Leu Gly Thr Leu Arg Lys Phe Pro Gly Ser Lys Leu Ala Glu
 50 55 60
 Met Phe Ser Ser Leu Ala Lys Ala Ser Thr Asp Ala Glu Gly Arg Phe
 65 70 75 80
 Phe Ile Asp Arg Pro Ser Thr Tyr Phe Arg Pro Ile Leu Asp Tyr Leu
 85 90 95
 Arg Thr Gly Gln Val Pro Thr Gln His Ile Pro Glu Val Tyr Arg Glu

	100		105		110										
Ala	Gln	Phe	Tyr	Glu	Ile	Lys	Pro	Leu	Val	Lys	Leu	Leu	Glu	Asp	Met
	115						120						125		
Pro	Gln	Ile	Phe	Gly	Glu	Gln	Val	Ser	Arg	Lys	Gln	Phe	Leu	Leu	Gln
	130					135					140				
Val	Pro	Gly	Tyr	Ser	Glu	Asn	Leu	Glu	Leu	Met	Val	Arg	Leu	Ala	Arg
145					150					155				160	
Ala	Glu	Ala	Ile	Thr	Ala	Arg	Lys	Ser	Ser	Val	Leu	Val	Cys	Leu	Val
			165					170					175		
Glu	Thr	Glu	Glu	Gln	Asp	Ala	Tyr	Tyr	Ser	Glu	Val	Leu	Cys	Phe	Leu
			180					185					190		
Gln	Asp	Lys	Lys	Met	Phe	Lys	Ser	Val	Val	Lys	Phe	Gly	Pro	Trp	Lys
	195						200					205			
Ala	Val	Leu	Asp	Asn	Ser	Asp	Leu	Met	His	Cys	Leu	Glu	Met	Asp	Ile
	210					215					220				
Lys	Ala	Gln	Gly	Tyr	Lys	Val	Phe	Ser	Lys	Phe	Tyr	Leu	Thr	Tyr	Pro
225					230					235				240	
Thr	Lys	Arg	Asn	Glu	Phe	His	Phe	Asn	Ile	Tyr	Ser	Phe	Thr	Phe	Thr
			245					250					255		

Trp Trp

<210> 2773

<211> 593

<212> DNA

<213> Homo sapiens

<400> 2773

nacagtcaga cagggaatga tgaagaggct ttcgactttt ttgaggagca agaccaagtg
 60
 gcagaagagg gtccgcccggt ccagagccgtg aagggcgagg atgctgagga atccttgagg
 120
 gaggaggagg cgctggaccc tctgggcatt atgcgtccca agaagcccaa gaaacatccc
 180
 aaagtggccg tgaagcccaa gccctcgccc cggtctacca tctttgacga ggaggtggag
 240
 cctgatgagg ggctcttttg cccgggcagg aagctgtctc cacaggaccc ctcggaggag
 300
 gtgtcatcca tggacccctt gaagctattt gatgatcctg acctcggcgg gcccatcccc
 360
 ctgggtgact cctctctgct gccggccgct tgtgagagtg gagggcccac acccagcctc
 420
 agccacaggg acgacctcaa ggaactgttc agacaaattc aaaaagagcc gtaacactgg
 480
 gattagcttc ttgagagcag gaaccacatt cattctttgt gtctgccctg tgactatcca
 540
 gggagttagt ggacttcctc ataataaaga atgttctgat agccaaaaaa aaa
 593

<210> 2774

<211> 157

<212> PRT

<213> Homo sapiens

<400> 2774

Xaa Ser Gln Thr Gly Asn Asp Glu Glu Ala Phe Asp Phe Phe Glu Glu
 1 5 10 15
 Gln Asp Gln Val Ala Glu Glu Gly Pro Val Gln Ser Leu Lys Gly
 20 25 30
 Glu Asp Ala Glu Glu Ser Leu Glu Glu Glu Ala Leu Asp Pro Leu
 35 40 45
 Gly Ile Met Arg Ser Lys Lys Pro Lys Lys His Pro Lys Val Ala Val
 50 55 60
 Lys Ala Lys Pro Ser Pro Arg Leu Thr Ile Phe Asp Glu Glu Val Asp
 65 70 75 80
 Pro Asp Glu Gly Leu Phe Gly Pro Gly Arg Lys Leu Ser Pro Gln Asp
 85 90 95
 Pro Ser Glu Asp Val Ser Ser Met Asp Pro Leu Lys Leu Phe Asp Asp
 100 105 110
 Pro Asp Leu Gly Gly Ala Ile Pro Leu Gly Asp Ser Leu Leu Leu Pro
 115 120 125
 Ala Ala Cys Glu Ser Gly Gly Pro Thr Pro Ser Leu Ser His Arg Asp
 130 135 140
 Ala Ser Lys Glu Leu Phe Arg Gln Ile Gln Lys Glu Pro
 145 150 155

<210> 2775

<211> 3139

<212> DNA

<213> Homo sapiens

<400> 2775

nacgcgtgtg tgctagttag ccggagccgg cgacggcggc agtggcggcc cggcctgcag
 60
 gagcccgacg gggctctctgc catgggggag tgacgcgcct gcacccgctg ttccggcgga
 120
 gcggcgagac atgaggagac cccgcgacag gggcagcggc gccggctcgt gagccccggg
 180
 atggaggaga aatacggcgg ggaagtgtct gccggccccg gcggcgggcg cggccttggg
 240
 ccggtggagc tacccagcgc tcgattaaca aaatatattg tgttactatg ttctactaaa
 300
 tttttgaagg ctgtgggact ttctgaatca tatgatctcc taaaagctgt tcacattgtt
 360
 cagttcattt ttatattaaa acttgggact gcatttttta tggttttgtt tcaaaagcca
 420
 ttttctctcg ggaaaactat taccaaacac cagtggatca aaatatattt acatgcagtt
 480
 gctgggtgta ttatttcaact cttgtggttt ttggcctca ctctttgttg accactaagg
 540
 actttgtctg tatttgagca cagtgatatt gttgtcattt cactactcag tgttttggtc
 600
 accagttctg gaggaggacc agcaaagaca aggggagctg cttttttcat tattgctgtg
 660
 atctgttttt tgctttttga caatgatgat ctcatggcta aaatggctga acacggtatc
 720
 cttttggaag agatcagagt tgtttcaagt cttgaggaaa actagaagca ggggtggagta
 780

ttattgctag tactggcttt gtgttgtaaa gttggtttcc atacagcttc cagaaagctc
840
tctgtcgacg ttggtggagc taaacgtctt caagctttat ctcactttgt ttctgtgctt
900
ctcttgctgc catgggtcat tgttctttct gtgacaactg agagtaaagt ggagtcttgg
960
ttttctctca ttatgccttt tgcaacggtt atcttttttg tcatgatcct ggatttctac
1020
gtggattcca tttgttcagt caaaatggaa gtttccaaat gtgctcgta tggatccttt
1080
cccattttta ttagtgctct ccttttttga aatttttggc cacatccaat aacagaccag
1140
cttcgggcta tgaacaaagc agcacaccag gagagcactg aacacgtcct gtctggagga
1200
gtggtagtga gtgctatatt ctccattttg tctgccata tcttatcctc tccctcctaa
1260
agaggacaaa aaggtaccct tattggatat tctcctgaag gaacacctct ttaataactc
1320
atgggtgatg cttttcagca tagctctcaa tgcataccta ggtttattaa ggaatcacta
1380
aaacaaattc ttgaggagag tgactctagg cagatctttt acttcttggt cttgaatctg
1440
ctttttacct ttgttgaatt attctatggc gtgctgacca atagtctggg cctgatctcg
1500
gatggattcc acatgctttt tgactgctct gctttatgta tgggactttt tgcctccctg
1560
atgagtaggt ggaagccac tcggattttc tccatgggt acggccgaat agaaattctg
1620
tctggattta ttaatggact ttttctaata gtaatagcgt tttttgtgtt tatggagtca
1680
gtggctagat tgattgatcc tccagaatta gacactcaca tgttaacacc agtctcagtt
1740
ggagggtcga tagtaaacct tattgggtatc tgtgccttta gccatgccca tagccatgcc
1800
catggagctt ctcaaggaag ctgtcactca tctgatcaca gccattcaca ccatatgcat
1860
ggacacagtg accatgggca tggtcacagc cagcgatctg cgggtggagg catgaatgct
1920
aacatgaggg gtgtaatctc tacatgtttt ggcagatatt cttggcagca ttggtgtgat
1980
cgtatccaca gtcttataga gcagtttga tggttcatcg ctgactctac tctgttctct
2040
ttttattgct atattaatat ttctcagtg tgttccactg attaaagatg cctgccaggt
2100
tctactcctg agattgccac cagaatatga aaaagaacta catattgctt tagaaaaagt
2160
acagaaaatt gaaggattaa tatcataccg agaccctcat tttggcgctc attctgctag
2220
tatttgggca ggaacaattc atatacaggt gacatctgat gtgctagaac aaagaatagt
2280
acagcaggtt acaggaatac ttaaagatgc tggagtaaac aatttaacaa ttcaagtggc
2340
aaaggaggca tactttcaac atatgtctgg cctaagtact ggatttcatg atgttctggc
2400

tatgacaaaa caaatggaat ccatgaaata ctgcaaagat ggtacttaca tcatgtgaga
 2460
 taactcaaga attacccttg gagaataaac aatgaagatt aaatgactca gtatttgtaa
 2520
 tattgccaga aggataaaaa ttacacatta actgtacaga aacagagttc cctactactg
 2580
 gatcaaggaa tctttcttga aggaatttta aatacagaat gaaacattaa tggtaaaagt
 2640
 ggagtaatta tttaaattat gtgtataaaa ggaatcaaat tttagtataa catgatgtat
 2700
 tacatcatct tcaaaaaatg atatgatgga ttctagttaa gacaaaaatt acttctgttt
 2760
 actttctatc aggaagcatc tccattgtaa atatgtattt acatgtttat tacaagagcc
 2820
 caaatgaaaa atttttagtc cattttttgc atagcctaaa gataaaatag gaataaaagt
 2880
 tctatattta tggattttct gtatataaaa ctggtttcta attataaact aagtccatta
 2940
 agtaaaatct gtattgccac tttaaatgta aactaaatta ttggggagaa acttcaacca
 3000
 ctgatatgag ataagcaatg agaatagggg agtgtataac atcacagttt ttgatgtatt
 3060
 acaaaaaatca accactctat aaaaaaatt ttttttactt ttggtaaaaa aaaaaaaaaa
 3120
 aaaaaaaaaa aaaaaaaaaa
 3139

<210> 2776

<211> 370

<212> PRT

<213> Homo sapiens

<400> 2776

Met Pro Phe Ala Thr Val Ile Phe Phe Val Met Ile Leu Asp Phe Tyr
 1 5 10 15
 Val Asp Ser Ile Cys Ser Val Lys Met Glu Val Ser Lys Cys Ala Arg
 20 25 30
 Tyr Gly Ser Phe Pro Ile Phe Ile Ser Ala Leu Leu Phe Gly Asn Phe
 35 40 45
 Trp Thr His Pro Ile Thr Asp Gln Leu Arg Ala Met Asn Lys Ala Ala
 50 55 60
 His Gln Glu Ser Thr Glu His Val Leu Ser Gly Gly Val Val Val Ser
 65 70 75 80
 Ala Ile Phe Phe Ile Leu Ser Ala Asn Ile Leu Ser Ser Pro Ser Lys
 85 90 95
 Arg Gly Gln Lys Gly Thr Leu Ile Gly Tyr Ser Pro Glu Gly Thr Pro
 100 105 110
 Leu Tyr Asn Phe Met Gly Asp Ala Phe Gln His Ser Ser Gln Ser Ile
 115 120 125
 Pro Arg Phe Ile Lys Glu Ser Leu Lys Gln Ile Leu Glu Glu Ser Asp
 130 135 140
 Ser Arg Gln Ile Phe Tyr Phe Leu Cys Leu Asn Leu Leu Phe Thr Phe
 145 150 155 160
 Val Glu Leu Phe Tyr Gly Val Leu Thr Asn Ser Leu Gly Leu Ile Ser

```

                165                170                175
Asp Gly Phe His Met Leu Phe Asp Cys Ser Ala Leu Val Met Gly Leu
                180                185                190
Phe Ala Ala Leu Met Ser Arg Trp Lys Ala Thr Arg Ile Phe Ser Tyr
                195                200                205
Gly Tyr Gly Arg Ile Glu Ile Leu Ser Gly Phe Ile Asn Gly Leu Phe
                210                215                220
Leu Ile Val Ile Ala Phe Phe Val Phe Met Glu Ser Val Ala Arg Leu
225                230                235                240
Ile Asp Pro Pro Glu Leu Asp Thr His Met Leu Thr Pro Val Ser Val
                245                250                255
Gly Gly Leu Ile Val Asn Leu Ile Gly Ile Cys Ala Phe Ser His Ala
                260                265                270
His Ser His Ala His Gly Ala Ser Gln Gly Ser Cys His Ser Ser Asp
275                280                285
His Ser His Ser His His Met His Gly His Ser Asp His Gly His Gly
290                295                300
His Ser His Gly Ser Ala Gly Gly Gly Met Asn Ala Asn Met Arg Gly
305                310                315                320
Val Ile Ser Thr Cys Phe Gly Arg Tyr Ser Trp Gln His Trp Cys Asp
                325                330                335
Arg Ile His Ser Leu Ile Glu Gln Phe Gly Trp Phe Ile Ala Asp Ser
340                345                350
Thr Leu Phe Ser Phe Tyr Cys Tyr Ile Asn Ile Ser Gln Cys Cys Ser
355                360                365
Thr Asp
370

```

<210> 2777

<211> 8625

<212> DNA

<213> Homo sapiens

<400> 2777

```

tcattgagcat ctcattttca ccattggaat cataaaattg gaagtcttgt atgaattctt
60
tctcagtcct gattctttcc ttgtctctt tgcttatagg tggttttcgg atggttttacc
120
cttcagcatt tgtttgattc ttctcagaat gacatcccg ttctcagag tggttgccagt
180
gcttgagacc acattgcagt tgggcagcaa gggcttggt gtgtgaagga cccaaataac
240
tgtgggatgc ctctgacccc tccacctct ccagaacagg ctatcctagg tgagagtggg
300
ggtagtcaga gtgctgccag tcacctggtt tcccaagatg gagggatgat aacgatgcac
360
agtccaaaga gatcggggaa gattcctcca aaactccaca atcatatggt ccatcgagtc
420
tggaaggaat gcattcctca cagaacccag tccaagagga gccaaatgtc aactccaact
480
cttggaagaag agcctgctag caatcctgct acttgggatt ttgtggatcc aacccaaga
540
gtcagctggt cttgttccag gcataagctt ttaaaacgtt gtgcagtcgg gcccaatcga
600

```

cctcccacag tatctcaacc aggggttcagt gcaggacccat catcatcttc atctttacca
660
cctcctgctt cttctaagca caaaacagca gaaagacagg aaaaaggaga caagctgcaa
720
aagagaccct taataccatt tcaccatagg cctcctgttg ccgaagaatt atgcatggag
780
caagatacac caggacagaa actaggggtg gcagggatag actcctcctt agagggtgtt
840
agcagtagga aatatgataa gcaaatggcc gtgccttcca gaaatacaag caagcaaatg
900
aatctgaatc ctatggattc acctcatcc cctatatccc ctctgccacc aacactcagc
960
cctcagccac gaggtcagga aacagagagt ttggacccac catcgggtccc tgtgaatcca
1020
gccctttatg gaaatggact agaactccag cagttgtcta ctctggatga cagaactgtc
1080
ctcgtaggcc aaagactgcc tctcatggca gaggtcagcg agacagcctt atattgtggg
1140
attaggccct cgaaccgga gtcatcagaa aagtgggtggc atagtattcg tctccacc
1200
agtgatgatg ctgagttcag gcctccagag ctccaggggt agagatgtga tgccaaaatg
1260
gaggtaaact cagagagcac tgcattgcaa agactcttag cacaacctaa caaacggttt
1320
aaaatctggc aagacaaaca gcccagttg cagccactcc acttctctga cccattgcct
1380
ctatcacaa acctcggaga cagtttggga gaagtgaatg accatatac ctttgaagat
1440
ggtgacataa aatacatctt tacagccaac aagaaatgca aacaagggac ggagaagat
1500
tcctgaaaa agaataagtc agaggatgga tttggtaacca aggatgtcac tacaccaggt
1560
cattccacgc cgggtgcctga tgggaaaaat gccatgtcta ttttcagttc tgctactaaa
1620
acagatgtcc ggcaggataa tgctgtctggc agagctggct ccagtagcct tacacaggta
1680
acagatttgg caccttcctt gcatgactta gacaacatct ttgataatc tgatgacgac
1740
gaacttgggg ctgtatcacc tgctctgcgc tcatcaaaaa tgccctgcagt tgggacagaa
1800
gaccgacctc ttgggaagga tgggaagact gctgttccct atccaccaac agttgcagac
1860
ttgcaaagga tgtttccac tccaccatct ttggaacagc atcctgcatt tctcctgtg
1920
atgaattata aagatgggat cagctcagag acagtgcagc cattaggcat gatggagagc
1980
cctatggtca gtatggtttc aacacaactc acagaattca aaatggaagt ggaagatgga
2040
ttagggaagtc ccaagccga ggaatattaag gacttttcat atgtgcacaa agttccatcc
2100
tttcaacctt ttgtgggac ctccatgttt gctccactga agatgttgcc gagccattgt
2160
ttgtctacct tgaagatacc tgatgcctgt ctgtttcggc ctcatgggc aattcctctc
2220

aaaattgaac aactgcccac gccccctgca gccactttca ttagagatgg ctacaataac
2280
gtgcctagtgt ttggggagcct agcagatcca gactatctga acacaccaca gatgaacaca
2340
cccgtagcgt tgaacagcgc tgccccagcc agcaatagtg gggcaggagt cctaccatct
2400
ccagcaaccc ctgccttctc tgtccccaca ccacgaaccc ccaggacccc aagaactccc
2460
agaggtagggg gcactgccag tgggtcaaggg tctgttaagt atgatagcac cgatcaaggga
2520
tcaccagcct ccaccccctc tactacacgg cccctcaact ctgtggagcc cgccaccatg
2580
cagccaattc ccgaagccca cagcctctat gttaccctga ttctctccga ttccgtgatg
2640
aatatcttta aagacagaaa ctttgacagc tgttgcatct gtgcctgcaa catgaacatc
2700
aaaggggagg atgtcgggct ttacatcccc gattcttcca atgaggacca gtaccgctgt
2760
acctgtgggt ttagtgcgat tatgaaccgc aaacttggct acaattcagg actcttccct
2820
gaagatgagt tggatatctt tgggaagaat tctgatattg gtcaggctgc agagaggcgc
2880
ttaatgatgt gtcagtcacc ctctcttccct cagggtggaag gaaccaaaaa accccaggag
2940
ccaccataaa gccttctcct cctcctccag aatcaacaca cacaaccttt tgcttcactg
3000
aatttccctg actacatttc ctctaacaat cgccaaactc ttcctgtgtg aagctggagt
3060
tatgaccggg tgcaagcaga taataatgat tactggacgg aatgctttaa tgcgttggag
3120
cagggggcggc agtatgtgga taaccccact ggtggaaaag tggacgaagc tctggtgaga
3180
agtgcactg tgcaactctg gcctcacagc aatgtgctgg acatcagcat gctctcctcc
3240
caggatgtgg ttctgatgct gttgtccctg cagcccttcc tccaagatgc catccaaaag
3300
aagcgacagg gcaggacctg ggagaacatc cagcatgtgc agggaccact cacttggcag
3360
cagttccata aaatggcagg acggggaacc tacggttcgg aagaatctcc tgagccgttg
3420
cccatcccca ctctgctggt aggcctatgac aaggatttcc tcaccatctc gccattctcc
3480
ttgccgtttt gggagaggct cttgttggac ccatatgggg gccaccgtga tggttgcctat
3540
attgtgggtgt gtccagaaaa tgaggccttg ctgcaaggag ccaaaacttt ctcaggggac
3600
ttgagtgtct tatacgagat gtgtaggctt gggcagcaca agcccatctg caaagtgcata
3660
cgtcacggga tcatgcgcgt gggaaaaact gtggcacaga agctgacaga tgagcttgtg
3720
agttagtggt ttaaccagcc ttggagcggc gaggagaatg acaatcatc cagactcaaa
3780
cttatgcgc aagtttgccg ccatcaccta gcaccttatt tagceactct gcagcttgat
3840

agcagcctat tgataccacc taaataccag accccaccag cagcagcaca gggacaagct
3900
acgccaggga atgctgggcc cttagctcca aatggatcag cagctcccc agctggcagt
3960
gcattttaac ccaccctgaa tagtagttct acaaatctcg cagcaagtag ttctgcattc
4020
ggttccctcg tgccaccggt ctcacgtct cctctctc cttggtattag ccagataagc
4080
actacctctt cttcaggatt cagtggtagt gttggagggc agaaccaccag cactgggggc
4140
attttctcgg atagaacgca acggaacata ggctgtggtg gagacactga ccttgggcag
4200
agctcttctc agccctcaca ggatggacaa gagagtgtta cagaaaggga gagaatagga
4260
attccccagg agcctgactc tgcagacagc catgcccacc ctccagctgt tgtcatttac
4320
atggtgagcc cgttcaegta tgcctgcagag gaggactcca ctcttgggaa cttttggctg
4380
ttgagcttga tgcgctgcta cacagaaatg ctggataatt tacctgagca tatgagaaat
4440
tccttcattc tccagattgt gccttgccag tacatgctgc agacaatgaa ggaatgagca
4500
gttttctaca ttcaatactt gaagtccatg gcattttcag tgtactgccca gtgcaggcga
4560
ccactgceta cacagatcca cattaatcc ctacgggat tggggcctgc agccagcatt
4620
gagatgaccc tcaagaaccc tgagcggccc agcccaatcc agctttactc cctcccttt
4680
atattggccc caatcaaaga caagcagaca gagctgggag agacgtttgg tgaggcgagc
4740
cagaaataca atgtgctctt cgtgggctat tgtctgtctc acgaccagcg ctggcctttg
4800
gcttctcgca ctgacctcca tggggaatta ttagagacct gcgttgtaaa tattgcttta
4860
ccaaacaggt cagcgaggag taaagtatct gcaagtataa ttggactaca gaagtatatg
4920
gagtggtgca tagggattgt ccaaatgaca tctctacctt ggagagtgtt aatcgggcga
4980
cttgggcgtc ttggccatgg ggagcttaaa gattggagta tctccttg agaatgttca
5040
ctacagacaa tcagcaaaaa gctcaaggat gtgtgccgga tgtgtggaat ctctgccgca
5100
gactctcctt ctatccttag tgcctgectg gttgccatgg agccccagg gtcctttgta
5160
gtgatgccag atgtgtctac aatgggctct gttttggcc gaagtaactgc actgaacatg
5220
cagtcattct agctcaaac cctcaagat gcttcttcta cacacattt ggtgttccca
5280
acatcatcaa ccatccaggt ggtccagcc aactacccca atgaagatgg gtttatgccc
5340
aacaatgatg atatgtttgt tgaccttcca ttcacagatg atatggacaa tgatattggc
5400
atattaatga ctgggaacct ccatctctct cccaactctt cccagtagc ctccccagc
5460

tctccttctg gaattggtgt gggctctcac ttccagcata gtcggagcca gggtgagcgt
5520
cttctttteta gagaagcacc agaggagcta aagcagcagc ccttggccctt tgggtatttt
5580
gtatcaactg ccaaagctga gaattctccc cagtgggtttt ggtcatcgtg tcccagggt
5640
caaaaccagt gccctctctt cttaaagctc tcgctgcac accacatttc agtagcacag
5700
acagacgaac ttctgcctgc cagggaattct cagcgggttc cacaccctct tgaatccaaa
5760
accacgtcgg atgtttttaag gtttgtttt gagcagta acgctctgtc ctggctcagc
5820
tgcaatccgg cccccagga cgtacttcc tgccttccg tcactttgtt ggtgctcact
5880
cagttgtaca atgccatcat gaataactt taattggaaa agcacttggt ctctctggct
5940
cagttccttc tccctgcaac ctccagtcga ggaacctgct acactctgca aataaccac
6000
atccttttct tcagaccact ctccacagtc ctgcactgtg attccttctc agcaggcaca
6060
tgtcaattct cagtggttca ttaccagagt gactccttga cacttctctc atggacctgg
6120
aaacttccat aagtgggtgac ttccagccag tgcgggtggt tgtgtagccc caacctctgg
6180
tcccaggaa gtggtgggtg ttgatggctt ttcagcggga aacagaagag acagtgtcct
6240
tttgacaag agtctgtgtt ttcagcctct gtatacaatt gagggcagtc tagcccttgg
6300
gatgaaatcc tcttagttac tgggtgatgg cctgtgggtt acctgaactc cataatccgg
6360
gactttttta aaataagaac cagctcaagt acatgggttc atactggggt ttctgtctcc
6420
ctagtgttcc catccagatt agcatgagtg ctttgggtga ctcaaacct gtgtgtcaat
6480
gcagaaggtc tggagacagc ttcatattgt ttattttatt taatttgttt tgtcatatgg
6540
tttttgtgac ttattttttt taattccaaa ggaccaggta cagttagctga aacccaattc
6600
agatccacca taggattctt tgactacata cctctgtcct agaagccgga aaaggagtaa
6660
aaacacattg gggagatcat gcctaaaagt aatatattca aaaccaccca cgatagggtt
6720
ttgttaacaa caaactggat tttaaaagt ctgccatgtt aagtggccag cattttcatga
6780
aggataacat ttttatacag aaggcagtc agctcaactc agagccatgg aggcaagtac
6840
cttaattagt tttatatagt cacaacggaa atatatcttc tagtgaattc ttattggaag
6900
ccaggctctc cctctcatta gatcaaaagg gacttatgta catacaacaa ttgaaagtgt
6960
ttgctcatga aatcagttat aaatatgggt aattttttct ggacctagg aatattattt
7020
caaaagaaata ttacaactta accattaaat tagtacttga agttgagcct ttgtgggtggg
7080

acttttttaa aaaatgcctt tttaaagcat taatggctaa ttgaagtatt ttatgactcc
7140
tcatttcttg ccagaggggt tgtctttgaa accctgtttc taaccttgt gttgtgtgtt
7200
tctgtctgag gacagtgggt gtgtactggc ctcccgggag ccaactgtgac caggcctttg
7260
agctcttgtc atctgtggag agaatactgc aaatttttaa agttcttcca agagacttcc
7320
atgtcttggt tattaacaaa aaaggaaaaa tgtaataatt gatatgattt tgtaaaagta
7380
tttttcttga aataatctaa agtttaaaac attatattaa aaaaaagtt gtgtggtggg
7440
aatgtgaaa gagagaaata acttgtaaat ggataatttt gttctctgta ccaccagtgt
7500
aaggggggggt tgactttcgc aatgtatagg ataaaaatc tgatatatca aaccatttgt
7560
atctaagtgt tacagtgtaa aatigacttt aaaaatatg cagtgtctatt ttttcttaat
7620
cagaaaggaa aattctcaag gccttttgaa gagcataaga agatgaagat tgtaaaactg
7680
tataaaatta tcttggtgag aagacaaatt gtaaaagtaga tatttgtaat cttttaccac
7740
tttgggggtt cttttttccc ggaatttcac agaactttga atttttttt taaatgggct
7800
gtttttaatg caggggcttt tcttccctag aaacccaatt ctaagcagaa aaagaaaaa
7860
aacacaaaaa ataaaaaac cctacaaaaa aactttaaaa aaaaaggcag caaagggtag
7920
ttttcatctg gtgtctttta ttaagtttt ttaagttaag aaaagctggt gacatattta
7980
tacgtttttg tgcaaaaata aatgaatggc aatagatttt aaaaaatctt attatgtact
8040
tctgtgtgaa aaagtctgta taatatcttc cttaaatatg cattatttta ctgtgagtt
8100
ttttactgaa ttaatctgaa atgtacaagc cctggatttg ctacagagtg agaagttatt
8160
ttatttttt ttatttttta ttttggaaat tctgcagaaa tcgaactctt taccatgggt
8220
tgaacaaaaa aaggggaaat ggggggggga aaagggtggg attgtccagc atgctgtgat
8280
gtatatctca gaacctttt taaatgtaaa agctgtacat ttctgggaag ttctgaattt
8340
cttttgtttc cttttttcct tcaagcattt tgcagtggag ttcttttata tatagcaaac
8400
aatttgaaag aatacaaaaa tatgtgaagt tcatttaaaa aaataactac agtatagcgc
8460
tggtacagta cactaaaaga ctttgataaa aagaacaat aataaaaggc ctccatttta
8520
aatgtcattc atatatacct tgtggatgag agctatatac ttttacacac ttttttagag
8580
gaataaatta tgaattact gaaaaaagaa aaaaaaaaaa aaaaa
8625

<210> 2778

<211> 1146

<212> PRT

<213> Homo sapiens

<400> 2778

```

Thr Ala Ser Gly Gln Gly Ser Val Lys Tyr Asp Ser Thr Asp Gln Gly
 1           5           10           15
Ser Pro Ala Ser Thr Pro Ser Thr Thr Arg Pro Leu Asn Ser Val Glu
 20           25           30
Pro Ala Thr Met Gln Pro Ile Pro Glu Ala His Ser Leu Tyr Val Thr
 35           40           45
Leu Ile Leu Ser Asp Ser Val Met Asn Ile Phe Lys Asp Arg Asn Phe
 50           55           60
Asp Ser Cys Cys Ile Cys Ala Cys Asn Met Asn Ile Lys Gly Ala Asp
 65           70           75
Val Gly Leu Tyr Ile Pro Asp Ser Ser Asn Glu Asp Gln Tyr Arg Cys
 85           90           95
Thr Cys Gly Phe Ser Ala Ile Met Asn Arg Lys Leu Gly Tyr Asn Ser
100          105          110
Gly Leu Phe Leu Glu Asp Glu Leu Asp Ile Phe Gly Lys Asn Ser Asp
115          120          125
Ile Gly Gln Ala Ala Glu Arg Arg Leu Met Met Cys Gln Ser Thr Phe
130          135          140
Leu Pro Gln Val Glu Gly Thr Lys Lys Pro Gln Glu Pro Pro Ile Ser
145          150          155
Leu Leu Leu Leu Gln Asn Gln His Thr Gln Pro Phe Ala Ser Leu
165          170          175
Asn Phe Leu Asp Tyr Ile Ser Ser Asn Asn Arg Gln Thr Leu Pro Cys
180          185          190
Val Ser Trp Ser Tyr Asp Arg Val Gln Ala Asp Asn Asn Asp Tyr Trp
195          200          205
Thr Glu Cys Phe Asn Ala Leu Glu Gln Gly Arg Gln Tyr Val Asp Asn
210          215          220
Pro Thr Gly Gly Lys Val Asp Glu Ala Leu Val Arg Ser Ala Thr Val
225          230          235
His Ser Trp Pro His Ser Asn Val Leu Asp Ile Ser Met Leu Ser Ser
245          250          255
Gln Asp Val Val Arg Met Leu Leu Ser Leu Gln Pro Phe Leu Gln Asp
260          265          270
Ala Ile Gln Lys Lys Arg Thr Gly Arg Thr Trp Glu Asn Ile Gln His
275          280          285
Val Gln Gly Pro Leu Thr Trp Gln Gln Phe His Lys Met Ala Gly Arg
290          295          300
Gly Thr Tyr Gly Ser Glu Glu Ser Pro Glu Pro Leu Pro Ile Pro Thr
305          310          315
Leu Leu Val Gly Tyr Asp Lys Asp Phe Leu Thr Ile Ser Pro Phe Ser
325          330          335
Leu Pro Phe Trp Glu Arg Leu Leu Leu Asp Pro Tyr Gly Gly His Arg
340          345          350
Asp Val Ala Tyr Ile Val Val Cys Pro Glu Asn Glu Ala Leu Leu Glu
355          360          365
Gly Ala Lys Thr Phe Phe Arg Asp Leu Ser Ala Val Tyr Glu Met Cys
370          375          380
Arg Leu Gly Gln His Lys Pro Ile Cys Lys Val Leu Arg Asp Gly Ile

```

```

385          390          395          400
Met Arg Val Gly Lys Thr Val Ala Gln Lys Leu Thr Asp Glu Leu Val
405
Ser Glu Trp Phe Asn Gln Pro Trp Ser Gly Glu Glu Asn Asp Asn His
420
Ser Arg Leu Lys Leu Tyr Ala Gln Val Cys Arg His His Leu Ala Pro
435          440          445
Tyr Leu Ala Thr Leu Gln Leu Asp Ser Ser Leu Leu Ile Pro Pro Lys
450          455          460
Tyr Gln Thr Pro Pro Ala Ala Ala Gln Gly Gln Ala Thr Pro Gly Asn
465          470          475
Ala Gly Pro Leu Ala Pro Asn Gly Ser Ala Ala Pro Pro Ala Gly Ser
485          490          495
Ala Phe Asn Pro Thr Ser Asn Ser Ser Ser Thr Asn Pro Ala Ala Ser
500          505          510
Ser Ser Ala Ser Gly Ser Ser Val Pro Pro Val Ser Ser Ser Ala Ser
515          520          525
Ala Pro Gly Ile Ser Gln Ile Ser Thr Thr Ser Ser Ser Gly Phe Ser
530          535          540
Gly Ser Val Gly Gly Gln Asn Pro Ser Thr Gly Gly Ile Ser Ala Asp
545          550          555
Arg Thr Gln Arg Asn Ile Gly Cys Gly Gly Asp Thr Asp Pro Gly Gln
565          570          575
Ser Ser Ser Gln Pro Ser Gln Asp Gly Gln Glu Ser Val Thr Glu Arg
580          585          590
Glu Arg Ile Gly Ile Pro Thr Glu Pro Asp Ser Ala Asp Ser His Ala
595          600          605
His Pro Pro Ala Val Val Ile Tyr Met Val Asp Pro Phe Thr Tyr Ala
610          615          620
Ala Glu Glu Asp Ser Thr Ser Gly Asn Phe Trp Leu Leu Ser Leu Met
625          630          635
Arg Cys Tyr Thr Glu Met Leu Asp Asn Leu Pro Glu His Met Arg Asn
645          650          655
Ser Phe Ile Leu Gln Ile Val Pro Cys Gln Tyr Met Leu Gln Thr Met
660          665          670
Lys Asp Glu Gln Val Phe Tyr Ile Gln Tyr Leu Lys Ser Met Ala Phe
675          680          685
Ser Val Tyr Cys Gln Cys Arg Arg Pro Leu Pro Thr Gln Ile His Ile
690          695          700
Lys Ser Leu Thr Gly Phe Gly Pro Ala Ala Ser Ile Glu Met Thr Leu
705          710          715
Lys Asn Pro Glu Arg Pro Ser Pro Ile Gln Leu Tyr Ser Pro Pro Phe
725          730          735
Ile Leu Ala Pro Ile Lys Asp Lys Gln Thr Glu Leu Gly Glu Thr Phe
740          745          750
Gly Glu Ala Ser Gln Lys Tyr Asn Val Leu Phe Val Gly Tyr Cys Leu
755          760          765
Ser His Asp Gln Arg Trp Leu Leu Ala Ser Cys Thr Asp Leu His Gly
770          775          780
Glu Leu Leu Glu Thr Cys Val Val Asn Ile Ala Leu Pro Asn Arg Ser
785          790          795
Arg Arg Ser Lys Val Ser Ala Arg Lys Ile Gly Leu Gln Lys Leu Trp
805          810          815
Glu Trp Cys Ile Gly Ile Val Gln Met Thr Ser Leu Pro Trp Arg Val

```

	820		825		830
Val Ile Gly Arg Leu Gly Arg Leu Gly His Gly Glu Leu Lys Asp Trp					
835		840		845	
Ser Ile Leu Leu Gly Glu Cys Ser Leu Gln Thr Ile Ser Lys Lys Leu					
850	855		860		
Lys Asp Val Cys Arg Met Cys Gly Ile Ser Ala Ala Asp Ser Pro Ser					
865	870		875		880
Ile Leu Ser Ala Cys Leu Val Ala Met Glu Pro Gln Gly Ser Phe Val					
885		890		895	
Val Met Pro Asp Ala Val Thr Met Gly Ser Val Phe Gly Arg Ser Thr					
900	905		910		
Ala Leu Asn Met Gln Ser Ser Gln Leu Asn Thr Pro Gln Asp Ala Ser					
915	920		925		
Cys Thr His Ile Leu Val Phe Pro Thr Ser Ser Thr Ile Gln Val Ala					
930	935		940		
Pro Ala Asn Tyr Pro Asn Glu Asp Gly Phe Ser Pro Asn Asn Asp Asp					
945	950		955		960
Met Phe Val Asp Leu Pro Phe Pro Asp Asp Met Asp Asn Asp Ile Gly					
965		970		975	
Ile Leu Met Thr Gly Asn Leu His Ser Ser Pro Asn Ser Ser Pro Val					
980	985		990		
Pro Ser Pro Gly Ser Pro Ser Gly Ile Gly Val Gly Ser His Phe Gln					
995	1000		1005		
His Ser Arg Ser Gln Gly Glu Arg Leu Leu Ser Arg Glu Ala Pro Glu					
1010	1015		1020		
Glu Leu Lys Gln Gln Pro Leu Ala Leu Gly Tyr Phe Val Ser Thr Ala					
1025	1030		1035		1040
Lys Ala Glu Asn Leu Pro Gln Trp Phe Trp Ser Ser Cys Pro Gln Ala					
1045		1050		1055	
Gln Asn Gln Cys Pro Leu Phe Leu Lys Ala Ser Leu His His Ile					
1060	1065		1070		
Ser Val Ala Gln Thr Asp Glu Leu Leu Pro Ala Arg Asn Ser Gln Arg					
1075	1080		1085		
Val Pro His Pro Leu Asp Ser Lys Thr Thr Ser Asp Val Leu Arg Phe					
1090	1095		1100		
Val Leu Glu Gln Tyr Asn Ala Leu Ser Trp Leu Thr Cys Asn Pro Ala					
1105	1110		1115		1120
Thr Gln Asp Arg Thr Ser Cys Leu Pro Val His Phe Val Val Leu Thr					
1125		1130		1135	
Gln Leu Tyr Asn Ala Ile Met Asn Ile Leu					
1140	1145				

<210> 2779

<211> 2461

<212> DNA

<213> Homo sapiens

<400> 2779

gaggcggatc acttgaggtc aggagttcga ggcagcctg accaacatag tgaaccctg
60
tctctactaa aaatacaaaa aacattagtt gggcatgggt gcaggcacct gtaatctcag
120
ctacttggga ggctgaggca ggagaatcgc ttgatcctaa gaggcagagg ctgcagtgat
180

ctgagatcac gccactgcac tccagccttt ggagactctg tctccaaaaa aaaaaaaaaa
240
aaaaaaaaaa agtatatata tataaacata tatcaagaa gtaagcaaa gtgaggaaaa
300
atgcactccg agcaggaggg ccagcatgtg caaaggccct gcggtggaaa ggaatttggc
360
ctgtttgagg agctgagtga aggctcattt ggctgggtca cagggataag aaggatgaga
420
ttcaagggtt tggcagggtt cgacagcagc cttgaggttg tgtctttgct tctctcccg
480
agcttctcgc tgaattccga gggggctgag aggatggcca ccaccgggac cccaacggcc
540
gaccgaggcg acgcagccgc cacagatgac cgggccgcc gcttcagggt gcagaagcac
600
tcgtgggacg ggctccggag catcatccac ggcagccgca agtactcggg cctcattgtc
660
aacaaggcgc cccacgactt ccagtttgtg cagaagacg atgagtctgg gcccactcc
720
cacccctctc actacctggg aatgccatat ggcagccgag agaactccct cctctactct
780
gagattccca agaagggtcc gaaagaggct ctgctgctcc tgtcttgaa gcagatgctg
840
gatcatttcc aggccacgcc ccaccatggg gtctactctc gggaggagga gctgctgagg
900
gagcggaaac gcctgggggt cttcggcctc acctcctacg acttccacag cgagagtggc
960
ctcttctctc tccaggccag caacagcctc ttccactgcc gcgacggcgg caagaacggc
1020
ttcatgggtga gccctggccc tggctgtgtg tccccatga aaccgctgga aatcaagacc
1080
cagtgtctcag ggccccgat ggaccccaaa atctgccctg ccgacctgc cttcttctcc
1140
ttcatcaata acagcgacct gtgggtggcc aacatcgaga caggcgagga gcggcggtg
1200
accttctgcc accaagggtt atccaatgtc ctggatgacc ccaagtctgc ggggtgtggcc
1260
acctctgtca tacaggaaga gttcgaccgc ttactgggtg actggtgtg cccacagcc
1320
tctgggaag gttcagaggg cctcaagacg ctgcgaatcc tgtatgagga agtcgatgag
1380
tccgaggttg aggtcattca cgtccctct cctgcgctag aagaaaaggaa gacggactcg
1440
tatcgggtacc ccaggacagg cagcaagaat cccaagattg ccttgaaact ggctgagttc
1500
cagactgaca gccagggcaa gatcgtctcg acccaggaga aggagctggt gcagcccttc
1560
agctcgtgtg tcccgaagggt ggagtacatc gccaggggcg ggtggaacct ggaatggcaaa
1620
tacgcctggg ccatgttctc ggaccggccc cagcagtggc tcagctcgt cctctctccc
1680
ccggccctgt tcatcccgag cacagagaat gaggagcagc ggctagcctc tgccagagct
1740
gtcccaggga atgtccagcc gtatgtgggtg tacgaggagg tcaccaacgt ctggatcaat
1800

gttcattgaca tcttctatcc ctccccccaa tcagaggagg aggcagagct ctgtttttctc
 1860
 cgcgccaatg aatgcaagac cggcttctgc catttgtaca aagtcaccgc cgtttttaaaa
 1920
 tcccagggct acgattggag tgagcccttc agccccgggg aagatgaatt taagtcccc
 1980
 attaaggaag agattgctct gaccagcggt gaatgggagg ttttggcgag gcaaggctcc
 2040
 aagatctggg tcaatgagga gaccaagctg gtgtacttcc agggcaccaa ggacacgcgc
 2100
 ctggagcacc acctctacgt ggtcagctat gaggcggcgc gcgagatcgt acgcctcacc
 2160
 acgccccggt tctcccatag ctgctccatg agccagaact tcgacatggt cgtcagccac
 2220
 tacagcagcg tgagcagccc gccctgcgtg cactctaca agctgagcgg ccccgacgac
 2280
 gacccccctgc acaagcagcc ccgcttctgg gctagcatga tggaggcagc cagctgcccc
 2340
 ccgattatg tctctccaga gatcttccat ttccacacgc gctcggatgt cgggctctac
 2400
 ggcatgatct acaagcccca cgcttgcag cacatcacca aaaaatctac cgtcttcgag
 2460
 a
 2461

<210> 2780

<211> 720

<212> FRT

<213> Homo sapiens

<400> 2780

Met	His	Ser	Glu	Gln	Glu	Gly	Gln	His	Val	Gln	Arg	Pro	Cys	Gly	Gly
1				5					10					15	
Lys	Glu	Phe	Gly	Leu	Phe	Glu	Glu	Leu	Ser	Glu	Gly	Ser	Phe	Gly	Trp
			20					25						30	
Val	Thr	Gly	Ile	Arg	Arg	Met	Arg	Phe	Lys	Gly	Leu	Ala	Gly	Val	Asp
			35				40					45			
Ser	Ser	Leu	Glu	Val	Val	Ser	Leu	Leu	Pro	Pro	Arg	Ser	Phe	Ser	Leu
			50			55					60				
Asn	Ser	Glu	Gly	Ala	Glu	Arg	Met	Ala	Thr	Thr	Gly	Thr	Pro	Thr	Ala
65				70					75					80	
Asp	Arg	Gly	Asp	Ala	Ala	Ala	Thr	Asp	Asp	Pro	Ala	Ala	Arg	Phe	Gln
			85						90					95	
Val	Gln	Lys	His	Ser	Trp	Asp	Gly	Leu	Arg	Ser	Ile	Ile	His	Gly	Ser
			100					105					110		
Arg	Lys	Tyr	Ser	Gly	Leu	Ile	Val	Asn	Lys	Ala	Pro	His	Asp	Phe	Gln
			115				120						125		
Phe	Val	Gln	Lys	Thr	Asp	Glu	Ser	Gly	Pro	His	Ser	His	Arg	Leu	Tyr
			130				135					140			
Tyr	Leu	Gly	Met	Pro	Tyr	Gly	Ser	Arg	Glu	Asn	Ser	Leu	Leu	Tyr	Ser
145				150					155					160	
Glu	Ile	Pro	Lys	Lys	Val	Arg	Lys	Glu	Ala	Leu	Leu	Leu	Leu	Ser	Trp
			165					170						175	
Lys	Gln	Met	Leu	Asp	His	Phe	Gln	Ala	Thr	Pro	His	His	Gly	Val	Tyr

	180		185		190
Ser Arg Glu	Glu Leu Leu Arg	Glu Arg Lys Arg	Leu Gly Val Phe		
	195	200	205		
Gly Ile Thr	Ser Tyr Asp Phe His	Ser Glu Ser Gly	Leu Phe Leu Phe		
	210	215	220		
Gln Ala Ser	Asn Ser Leu Phe His	Cys Arg Asp Gly	Gly Lys Asn Gly		
	225	230	235		240
Phe Met Val	Ser Pro Gly Pro Gly	Cys Val Ser Pro	Met Lys Pro Leu		
	245	250	255		
Glu Ile Lys	Thr Gln Cys Ser Gly	Pro Arg Met Asp	Pro Lys Ile Cys		
	260	265	270		
Pro Ala Asp	Pro Ala Phe Phe Ser	Phe Ile Asn Asn	Ser Asp Leu Trp		
	275	280	285		
Val Ala Asn	Ile Glu Thr Gly Glu	Glu Arg Arg Leu	Thr Phe Cys His		
	290	295	300		
Gln Gly Leu	Ser Asn Val Leu Asp	Asp Pro Lys Ser	Ala Gly Val Ala		
	305	310	315		320
Thr Phe Val	Ile Gln Glu Glu Phe	Asp Arg Phe Thr	Gly Tyr Trp Trp		
	325	330	335		
Cys Pro Thr	Ala Ser Trp Glu Gly	Ser Glu Gly Leu	Lys Thr Leu Arg		
	340	345	350		
Ile Leu Tyr	Glu Glu Val Asp Glu	Ser Glu Val Glu	Val Ile His Val		
	355	360	365		
Pro Ser Pro	Ala Leu Glu Glu Arg	Lys Thr Asp Ser	Tyr Arg Tyr Pro		
	370	375	380		
Arg Thr Gly	Ser Lys Asn Pro Lys	Ile Ala Leu Lys	Leu Ala Glu Phe		
	385	390	395		400
Gln Thr Asp	Ser Gln Gly Lys Ile	Val Ser Thr Gln	Glu Lys Glu Leu		
	405	410	415		
Val Gln Pro	Phe Ser Ser Leu Phe	Pro Lys Val Glu	Tyr Ile Ala Arg		
	420	425	430		
Ala Gly Trp	Thr Arg Asp Gly Lys	Tyr Ala Trp Ala	Met Phe Leu Asp		
	435	440	445		
Arg Pro Gln	Gln Trp Leu Gln Leu	Val Leu Leu Pro	Pro Ala Leu Phe		
	450	455	460		
Ile Pro Ser	Thr Glu Asn Glu Glu	Gln Arg Leu Ala	Ser Ala Arg Ala		
	465	470	475		480
Val Pro Arg	Asn Val Gln Pro Tyr	Val Val Tyr Glu	Glu Glu Val Thr	Asn	
	485	490	495		
Val Trp Ile	Asn Val His Asp Ile	Phe Tyr Pro Phe	Pro Gln Ser Glu		
	500	505	510		
Gly Glu Asp	Glu Leu Cys Phe Leu	Arg Ala Asn Glu	Cys Lys Thr Gly		
	515	520	525		
Phe Cys His	Leu Tyr Lys Val Thr	Ala Val Leu Lys	Ser Gln Gly Tyr		
	530	535	540		
Asp Trp Ser	Glu Pro Phe Ser Pro	Gly Glu Asp Glu	Phe Lys Cys Pro		
	545	550	555		560
Ile Lys Glu	Glu Ile Ala Leu Thr	Ser Gly Glu Trp	Glu Val Leu Ala		
	565	570	575		
Arg His Gly	Ser Lys Ile Trp Val	Asn Glu Thr Lys	Leu Val Tyr		
	580	585	590		
Phe Gln Gly	Thr Lys Asp Thr Pro	Leu Glu His His	Leu Tyr Val Val		
	595	600	605		
Ser Tyr Glu	Ala Ala Gly Glu Ile	Val Arg Leu Thr	Thr Pro Gly Phe		

610	615	620
Ser His Ser Cys Ser Met Ser Gln Asn Phe Asp Met Phe Val Ser His		
625	630	635
Tyr Ser Ser Val Ser Thr Pro Pro Cys Val His Val Tyr Lys Leu Ser		640
	645	650
Gly Pro Asp Asp Asp Pro Leu His Lys Gln Pro Arg Phe Trp Ala Ser		655
	660	670
Met Met Glu Ala Ala Ser Cys Pro Pro Asp Tyr Val Pro Pro Glu Ile		685
	675	680
Phe His Phe His Thr Arg Ser Asp Val Arg Leu Tyr Gly Met Ile Tyr		700
	690	710
Lys Pro His Ala Leu Gln His Ile Thr Lys Lys Ser Thr Val Phe Glu		720
705	710	715

<210> 2781

<211> 1268

<212> DNA

<213> Homo sapiens

<400> 2781

gtcagcgac ttcaggaagt gcagcgccag gcacaagagg ggaagaatat aggcaccacc
60
aagaaggaa tcggaccaac ctactcttcc aaagctgccc ggacaggcct ccgcatctgc
120
gacctcctgt cagattttga tgagttttct tccagattca agaacctggc ccaccagcac
180
cagtcgatgt tccccaccct ggaatatagac attgaaggcc aactcaaaag gctcaagggc
240
tttgctgagc ggatcagacc catggtccga gatggtgttt actttatgta tgaggcactc
300
cacggccccc ccaagaagat cctggtggag ggtgccaacg ccgccctcct cgacattgac
360
ttcgggacct acccctttgt gacttcaccc aactgcaccg tgggcggtgt gtgcacgggc
420
ctgggcatcc ccccgcaaa cataggtgac gtgtatggcg tggtgaaagc ctataaccaca
480
cgtgtgggca tcggggcctt cccacccgag cagatcaacg agattggagg cctgctcgac
540
accgcgggcc acgagtgagg agtgaccaca ggcaggaaga ggcgctgcgg ctggctcgac
600
ctgatgattc taagatatgc tcacatggtc aacggattca ctgcgctggc cctgacgaag
660
ctggacatcc tggacgtact ggggtgaggt aaagtcggtg tctcatacaa gctgaacggg
720
aaaaggattc cctatttccc agctaaccag gagatgcttc agaaggtcga agttgagtat
780
gaaacgctgc ctgggtggaa agcagacacc acaggcgcca ggaggtggga ggacctgccc
840
ccacaggccc agaactacat ccgcttttgt gagaatcacg tgggagtcgc agtcaaatgg
900
gttggtgttg gcaagtcaag agagtogatg atccagctgt tttagtcgca gactgagctg
960
atcccaacag gccctggcag cgtctggact tgtgtaaaca gcagcagtc cgttcctcgg
1020

290	295	300
Lys Ser Arg Glu Ser Met Ile Gln Leu Phe		
305	310	
<p><210> 2783 <211> 2376 <212> DNA <213> Homo sapiens</p>		
<p><400> 2783 gccgaacggc aaattgaaga agaaaaccga gagagagaat gggaaacggga agtgctgggc 60 ataagaagcgag acaagagtgta cagccctgcc attcagctac gtctcaaaaga acctatggat 120 gttgatgtag aagattatta cccagcttct ctggacatgg tgcggagcct gctggatggc 180 aacatagact catcacagta tgaagattca ctgagagaga tggtcaccat tcatgcctac 240 attgccttta ccattggacaa actgatccag agcatttgtca gacagctgca gcatatcgtg 300 agtgcgtaga tctgtgtgca ggtgactgac ctttacctgg cagaaaaataa taatggggcc 360 accggaggcc agctgaacac acagaactca aggagcctcc tggagtcaac gtatcagcgg 420 aaagctgagc agctaattgc agatgagaa tgctttaagc ttatgtttat tcagagccaa 480 gccaggtcc agctgactat tgagctcttg gacacagaag aggagaattc ggatgacctc 540 gtggaagcag agcgcgtggtc agactacgtg gagcgatata tgaattcaga tactacctcg 600 cctgagcttc gtgaacctct agcacagaaa ccagttattc tccccaggaa tctacggcgg 660 atccggaagt gtcaacgttg tcgagagcag caggaaaagg aagggaaggga aggaaacagc 720 aagaagacca tggagaatgt ggatagctcg gataagctgg agtgtagatt caagctgaat 780 tctacaaga tgggtgatgt gatcaaatca gaggactata tgmttcggag gaccgccctg 840 ctccgggctc atcagtccca tgagcgtgta agcaagcgtc tacatcagag attccaggcc 900 tgggtgatata aatggaccaa ggagcatgtg ccccgtagaa tggcagcaga gaccagcaag 960 tggctcatgg gtgaggggct ggaggggcctg gtgcctgta ccaccacctg tgatacagag 1020 acctgcatt ttgtgagcat taacaagtat cgtgtcaaat accggcacagt attcaaagcc 1080 ccttaactgc aaagccagag cagataaact ggggtgtgtg tggggatgtg tgtgtgggcc 1140 tatgactca cactcgaag aaacaaggaa gatgccttct aagcctcact gggcctctct 1200 gggacatgac cacctgacct gtgtgtggct ggtgcagcct ggcaccaagt gggctacctg 1260 ttaggaaacat gaataacctta caaagctgaa gctggaacct ttcccaaaag gttttgggta 1320</p>		

tagcctgcc c tggaggggaa ggaagtcctat gcaagcaaaag acatgcagtt tgcttgcaca
 1380
 caccagcaga gctaagactg gagtctcctg tggcctaact ttcaatgagg gaaccggatg
 1440
 ctgttccacac tttgactgga tggagatgca ttacaaaaac agactggaga aggacttaat
 1500
 actcagatgg attggaacta tcattggtcac tgctcctctc cctccccac aaaaggaaaa
 1560
 aaaagctgga tttgattttt tttttctggt caetcgagca catctaagat caccattag
 1620
 gttttatctg ggacctgcag tttggctttg ggattgatca tcttgtggat tttattcctg
 1680
 acgattccct tgctgcctac ccttttctct cctctggttc tcaacctcaa ctagttcaaa
 1740
 tcagttgttc tttttagctc ccgtggaact gttttgtatc tgctcttcta ctagttctac
 1800
 ttagtgcctt ccaccagctt tactctctga cacacacacg cacacacaca cacacaattt
 1860
 taacttgttt tttgtacat aatgtacata ctgtcaattt tttattaaaa gaaatatgct
 1920
 ttgattgtgt agcataactg ctctagcttc ttgtgtacca tagtactgtg gcttcagatt
 1980
 tagtacctat gaacagatgt acaagacatt tattacactt tttaccaaag ggagttacca
 2040
 ttgtagtact tttgtgtaaa acttgtcttc ccttttgccc ccaacttttt tttttttttt
 2100
 ttgtataata ataaagcttg gttcttactt aaggaaaaaa ctctcaacc cgtcccttg
 2160
 tcctcaccag aaaatactgt gaagcagga ttttgacttc agttccttat ccagggtaga
 2220
 aacaggattt tgcttaaaat acttggtact tgctccaaat caaaatatte caaaatctta
 2280
 gaatacttaa gtcttttagt acgtgttttt ttcccttggt caaataatct gaaaatatte
 2340
 tatatttggg taagttgtca agctatgtag tttgta
 2376

<210> 2784

<211> 361

<212> PRT

<213> Homo sapiens

<400> 2784

Ala Glu Arg Gln Ile Glu Glu Glu Asn Arg Glu Arg Glu Trp Glu Arg
 1 5 10 15
 Glu Val Leu Gly Ile Lys Arg Asp Lys Ser Asp Ser Pro Ala Ile Gln
 20 25 30
 Leu Arg Leu Lys Glu Pro Met Asp Val Asp Val Glu Asp Tyr Tyr Pro
 35 40 45
 Ala Phe Leu Asp Met Val Arg Ser Leu Leu Asp Gly Asn Ile Asp Ser
 50 55 60
 Ser Gln Tyr Glu Asp Ser Leu Arg Glu Met Phe Thr Ile His Ala Tyr
 65 70 75 80
 Ile Ala Phe Thr Met Asp Lys Leu Ile Gln Ser Ile Val Arg Gln Leu

	85		90		95
Gln His Ile Val Ser Asp Glu Ile Cys Val Gln Val Thr Asp Leu Tyr					
	100		105		110
Leu Ala Glu Asn Asn Asn Gly Ala Thr Gly Gly Gln Leu Asn Thr Gln					
	115		120		125
Asn Ser Arg Ser Leu Leu Glu Ser Thr Tyr Gln Arg Lys Ala Glu Gln					
	130		135		140
Leu Met Ser Asp Glu Asn Cys Phe Lys Leu Met Phe Ile Gln Ser Gln					
	145		150		155
Gly Gln Val Gln Leu Thr Ile Glu Leu Leu Asp Thr Glu Glu Glu Asn					
	165		170		175
Ser Asp Asp Pro Val Glu Ala Glu Arg Trp Ser Asp Tyr Val Glu Arg					
	180		185		190
Tyr Met Asn Ser Asp Thr Thr Ser Pro Glu Leu Arg Glu His Leu Ala					
	195		200		205
Gln Lys Pro Val Phe Leu Pro Arg Asn Leu Arg Arg Ile Arg Lys Cys					
	210		215		220
Gln Arg Gly Arg Glu Gln Gln Glu Lys Glu Gly Lys Glu Gly Asn Ser					
	225		230		235
Lys Lys Thr Met Glu Asn Val Asp Ser Leu Asp Lys Leu Glu Cys Arg					
	245		250		255
Phe Lys Leu Asn Ser Tyr Lys Met Val Tyr Val Ile Lys Ser Glu Asp					
	260		265		270
Tyr Met Tyr Arg Arg Thr Ala Leu Leu Arg Ala His Gln Ser His Glu					
	275		280		285
Arg Val Ser Lys Arg Leu His Gln Arg Phe Gln Ala Trp Val Asp Lys					
	290		295		300
Trp Thr Lys Glu His Val Pro Arg Glu Met Ala Ala Glu Thr Ser Lys					
	305		310		315
Trp Leu Met Gly Glu Gly Leu Glu Gly Leu Val Pro Cys Thr Thr Thr					
	325		330		335
Cys Asp Thr Glu Thr Leu His Phe Val Ser Ile Asn Lys Tyr Arg Val					
	340		345		350
Lys Tyr Gly Thr Val Phe Lys Ala Pro					
	355		360		

<210> 2785

<211> 492

<212> DNA

<213> Homo sapiens

<400> 2785

gcccgggttc ggaccgcgcg gcgacatggc cagctccgga gaggacatat ccaatgatga
60
tgatgacatg caccctgcag cagccgggat ggcagacggg gtccacctcc tagggttctc
120
tgatgagatc ctccttcaca tcctgagtca cgtccccagc acagatctga ttctgaacct
180
cggcggtacc tgtcggaagc ttgcagccct gtgccttgac aagagcctca tccacaccgt
240
gttgctgcaa aaggactatc aggcagcgga ggacaaagtg aggcagctgg tgaaggagat
300
cggccgggag atccagcagc tgagcatggc tggctgctac tggctgctg gctccaccgt
360

ggaacacgtg gcccgctgcc cgcagcctgg tgaagggtgaa cctctcgggc tgccacctca
 420
 cttccctcgc cctctacaag atgtctctcg cctcgagca cctgcgctcg ctggccatcg
 480
 acgtgagccc cg
 492

<210> 2786
 <211> 155
 <212> PRT
 <213> Homo sapiens

<400> 2786
 Met Ala Ser Ser Gly Glu Asp Ile Ser Asn Asp Asp Asp Asp Met His
 1 5 10 15
 Pro Ala Ala Ala Gly Met Ala Asp Gly Val His Leu Leu Gly Phe Ser
 20 25 30
 Asp Glu Ile Leu Leu His Ile Leu Ser His Val Pro Ser Thr Asp Leu
 35 40 45
 Ile Leu Asn Val Arg Arg Thr Cys Arg Lys Leu Ala Ala Leu Cys Leu
 50 55 60
 Asp Lys Ser Leu Ile His Thr Val Leu Leu Gln Lys Asp Tyr Gln Ala
 65 70 75 80
 Ser Glu Asp Lys Val Arg Gln Leu Val Lys Glu Ile Gly Arg Glu Ile
 85 90 95
 Gln Gln Leu Ser Met Ala Gly Cys Tyr Trp Leu Pro Gly Ser Thr Val
 100 105 110
 Glu His Val Ala Arg Cys Pro Gln Pro Gly Glu Gly Glu Pro Leu Gly
 115 120 125
 Leu Pro Pro His Phe Pro Ala Pro Leu Gln Asp Ala Leu Gly Pro Ala
 130 135 140
 Ala Pro Ala Leu Ala Gly His Arg Arg Glu Pro
 145 150 155

<210> 2787
 <211> 299
 <212> DNA
 <213> Homo sapiens

<400> 2787
 ngctcttaga caatgactcg ggacagtga atgaacaga agcatgctgc atcaacctca
 60
 atgtggggag aagagccgta ctctgacata tcagttgcta aaacacgtgc agggcatgcc
 120
 acaatgcaca gacatggcag tatccttctg gtgggagggga gtcaccattt gctctgcctt
 180
 gccctctgct ggggtgctctt acaggtgcta ctgcatccag cgttgaaac aattctgtgg
 240
 ggtattgatt ctgaagagat cactgatggc cgtgatttct tgcctcagct taccagat
 299

<210> 2788
 <211> 95
 <212> PRT

<213> Homo sapiens

<400> 2788

```

Met Thr Arg Asp Ser Gly Met Lys Gln Lys His Ala Ala Ser Thr Ser
 1           5           10           15
Met Trp Gly Glu Glu Pro Tyr Ser Asp Ile Ser Val Ala Lys Thr Arg
           20           25           30
Ala Gly His Ala Thr Met His Arg His Gly Ser Ile Leu Leu Val Gly
 35           40           45
Gly Ser His His Leu Leu Cys Pro Ala Leu Cys Trp Val Leu Leu Gln
 50           55           60
Val Leu Leu His Pro Ala Leu Glu Thr Ile Leu Trp Gly Ile Asp Ser
 65           70           75           80
Glu Glu Ile Thr Asp Gly Arg Asp Phe Leu Pro Gln Leu Thr Gln
           85           90           95

```

<210> 2789

<211> 492

<212> DNA

<213> Homo sapiens

<400> 2789

```

nggacccccag ctgctccttt ttgaaggaaa tctgctcgct cagggagtcg atcgggccga
 60
gctgctggaa ggagtgccacc aggaggctgc cggggccgg gagcccatgc tccagtcct
120
gcgagggccag gctgtgcagt ggggccagca ccagctgcag ctctctctcc agcaggtcca
180
ccctggactg cagcctctgc acttcttctc tcattgcact gtccactcct gcgggcagag
240
ccaggcgctg ggtcacggcc ggccggctcc caccacac cccagggtcc cctctctgtc
300
cccagggaga ggcagagcca gaagactcag gccaggcct ctgccacccc cgctgcctgc
360
ctggcgctgg ccagaggtct cagggtatgc cgctaagta cgtcggggcg ggtggctctg
420
cgcagaggct cagggtcccg gccacgtga gggaggtcaa ggctgaggtc tcacgggccc
480
tcgttccgaa tt
492

```

<210> 2790

<211> 141

<212> PRT

<213> Homo sapiens

<400> 2790

```

Arg Lys Ser Ala Arg Ser Gly Ser Arg Cys Gly Arg Ala Ala Gly Arg
 1           5           10           15
Ser Ala Pro Gly Gly Cys Arg Gly Pro Gly Ala His Ala Pro Val Pro
 20           25           30
Ala Arg Pro Gly Cys Ala Val Gly Pro Ala Pro Ala Ala Ser Pro
 35           40           45
Pro Ala Gly Pro Pro Trp Thr Ala Ala Ser Ala Leu Leu Pro Ser Leu

```

```

      50              55              60
His Cys Pro Leu Leu Arg Ala Glu Pro Gly Ala Gly Ser Arg Pro Ala
65              70              75              80
Gly Ser Pro Pro Thr Pro Pro Gly Leu Pro Pro Val Pro Arg Glu Arg
      85              90              95
Gln Ser Gln Lys Thr Gln Ala Gln Ala Ser Ala Thr Pro Ala Ala Cys
      100              105              110
Leu Ala Leu Ala Arg Gly Leu Arg Leu Cys Arg Leu Ser Thr Ser Gly
      115              120              125
Arg Val Ala Leu Arg Arg Gly Ser Gly Ser Arg Pro Arg
      130              135              140

<210> 2791
<211> 1271
<212> DNA
<213> Homo sapiens

<400> 2791
nntgtacagg ggaatgcagaa tcaatgaaag agataaaca acatcagagt actgtcagac
60
atagaggact ggataatata tttgtgtcct tctacatagt ggtatagaaa tatcagggtcc
120
ccaaattccc atttttcttc caatcacatt taaaatttca atatgttgca ggcagtatgt
180
gtaagattat atccaaatat ttactcctgg ttgctcctct tgggcaagct gtgaatatga
240
tcaaaatatt taaagaagga agaaggtaaa gatctaaaat atgacatgaa aatacccaga
300
gaagtgtgcc taaattagca ttagggtttg agggatccta aggatgacaa aaagggactc
360
ttctattgaa ttctgtggtg atgtcagcg atagtaacaa tctgcctcc cctaactct
420
tcctccctt ccagcagctt cacagaacat ggttgatgag gtaacttagg ggaatgcacag
480
ggtgtggcca gaagaccctt ttccctatag accactatga gcctgaaag atttatgagg
540
taatgttcac ttcctcctgt gcttcttttc ctatagtgta actatgaaga ctttactttc
600
accataccag atgtagagga ctcaagtcaag agaccagatc agggacccca gagacctctc
660
cctgaaggac tcctacctag accccctggg gatagtggta accaagatga tggtcctcag
720
cagagaccac caaaaccagg aggccatcac cgccatcctc cccacctcc ttttcaaaat
780
cagcaacgac caccacaacg aggacacgt caactctctc taccocgatt tccttctgtc
840
agcctgcagg aagcatcatc attcttccgg agggacagac cagcaagaca tccccaggag
900
caaccactct ggtaatctag aattcagtgg cagaaaaata ataagaagat aacttctctc
960
agaaagccat gacattgaaa taatgtggtc ataactcttt cttcagtata ccaataaaat
1020
attaatagca tgcggaagaa agaatggttt gcattccatc ggagagtgtg ccatttagag
1080

```

gtaacaggga gaggagaggg tgtgccatca agaggcaaca tggaggtgtt tcaaacctat
 1140
 gcatcttggt ataatatat ctttgctcac atgaatttta cttgttaatt agcctgggctg
 1200
 ggggtgaatgg taacaggaga gaaatggaag agaataggga gcactgcgcc agcattaaca
 1260
 gctcactgtc t
 1271

<210> 2792

<211> 123

<212> PRT

<213> Homo sapiens

<400> 2792

Cys	Ser	Leu	His	Pro	Val	Leu	Leu	Phe	Leu	Asp	Val	Asn	Tyr	Glu	Asp
1			5					10						15	
Phe	Thr	Phe	Thr	Ile	Pro	Asp	Val	Glu	Asp	Ser	Ser	Gln	Arg	Pro	Asp
			20				25						30		
Gln	Gly	Pro	Gln	Arg	Pro	Pro	Pro	Glu	Gly	Leu	Leu	Pro	Arg	Pro	Pro
		35					40				45				
Gly	Asp	Ser	Gly	Asn	Gln	Asp	Asp	Gly	Pro	Gln	Gln	Arg	Pro	Pro	Lys
	50					55				60					
Pro	Gly	Gly	His	His	Arg	His	Pro	Pro	Pro	Pro	Phe	Gln	Asn	Gln	
65				70				75					80		
Gln	Arg	Pro	Pro	Gln	Arg	Gly	His	Arg	Gln	Leu	Ser	Leu	Pro	Arg	Phe
			85					90					95		
Pro	Ser	Val	Ser	Leu	Gln	Glu	Ala	Ser	Ser	Phe	Phe	Arg	Arg	Asp	Arg
			100					105					110		
Pro	Ala	Arg	His	Pro	Gln	Glu	Gln	Pro	Leu	Trp					
			115				120								

<210> 2793

<211> 847

<212> DNA

<213> Homo sapiens

<400> 2793

gcgcgcgcgcac ttcgggctcc tcctcccgcc tccgtagtaa gcatggcgcc ggcggcggttc
 60
 gtgggtccctc ggggtgaaaca gaaagcggga gctacgcgga gagggagcga agagcggggc
 120
 tgaggcgccg gcgtcactgc caggaaacaa ccccaacagt cagcgcgcgc gcggccgcgcg
 180
 cggccctgag agctgactct gcagctgagg tagagagaca acgatcagga accctaaaga
 240
 gaggcgccag aggagccgcc ttctgcctca gaacggcgctg actcggagaa ttggagcggt
 300
 attcagtata ttaattgtctt attgataatg gcagaacatc caccactact ggatacaact
 360
 cagatctctaa gtatgatata ttctcttttg tctgccctta ttgtaagtgc agatggaaca
 420
 caacaggtta ttctggtaca agttaaccca ggagaagcat ttacaataag aagagaagat
 480

ggacagtttc agtgcattac aggtcctgct caggttccaa tgatgtcccc aaatggttct
 540
 gtgcctccta tctatgtgcc tcttggatat gccccacagg ttattgaaga caatgggtgt
 600
 cgaagagttg tctgtgtccc tcaggcacca gagtttcacc ctggtagtca cacagttctc
 660
 caccgttttc cacatcctcc tctacctggt ttcattcctg tcccaactat gatgccgcct
 720
 caccacgtca tatgtactca cccgtgactg gagctggaga catgacaaca cagtatatgc
 780
 cncagtatca gtcttcacaa gtctatggag atgtagatgc tcaactctaca catggccctt
 840
 cacgcgt
 847

<210> 2794

<211> 139

<212> PRT

<213> Homo sapiens

<400> 2794

Met	Ala	Glu	His	Pro	Pro	Leu	Leu	Asp	Thr	Thr	Gln	Ile	Leu	Ser	Ser
1			5					10					15		
Asp	Ile	Ser	Leu	Leu	Ser	Ala	Pro	Ile	Val	Ser	Ala	Asp	Gly	Thr	Gln
		20					25				30				
Gln	Val	Ile	Leu	Val	Gln	Val	Asn	Pro	Gly	Glu	Ala	Phe	Thr	Ile	Arg
	35				40						45				
Arg	Glu	Asp	Gly	Gln	Phe	Gln	Cys	Ile	Thr	Gly	Pro	Ala	Gln	Val	Pro
	50				55						60				
Met	Met	Ser	Pro	Asn	Gly	Ser	Val	Pro	Pro	Ile	Tyr	Val	Pro	Pro	Gly
65				70						75				80	
Tyr	Ala	Pro	Gln	Val	Ile	Glu	Asp	Asn	Gly	Val	Arg	Arg	Val	Val	Val
			85					90					95		
Val	Pro	Gln	Ala	Pro	Glu	Phe	His	Pro	Gly	Ser	His	Thr	Val	Leu	His
		100					105						110		
Arg	Ser	Pro	His	Pro	Pro	Leu	Pro	Gly	Phe	Ile	Pro	Val	Pro	Thr	Met
		115				120						125			
Met	Pro	Pro	His	His	Val	Ile	Cys	Thr	His	Pro					
	130					135									

<210> 2795

<211> 1022

<212> DNA

<213> Homo sapiens

<400> 2795

ngccggcgct gccagcagtt gtagagcagg ccaagcgcaa tgatgatgat gcagatggcc
 60
 ccaatgacca ccagcaccac gaagagcggt ccgtagtgcg tgcgcacctg gctgtggccg
 120
 gctgtggcgc tgctgtgtgt ggaatatgtc tggatgccaa tctcctccag gctcctgcgg
 180
 atgtcaccca gcattgaaag gacatcttga gtgggcacca cccctgctc gccaccagt
 240

gtcatgagaa ggtgctgctc cttctcgctg ggcttgctca gagagatgtg ccaggcccca
 300
 tggtagggcac tgccatggcg gggcagcacc tcttcacca gggccaggag ctgtggcccc
 360
 cggtgctgcc ggaacacctc acagtctatg ttctctgtca tgttcagaat gatgtagttt
 420
 ttccagcca gattgctcca gtccttgtag atcacctgcg tagaatccca gggatatcctg
 480
 gattgagctt cagctgcctg cccttctagg agctgctggg tgagatcttc ttgtcccaag
 540
 gtagcagagg aaggtgtcag ttccatgtct ccaggggcca gtggggaaga ggcgtagggtt
 600
 ctagagccaa ggggatcttc atctgggtgc tcggccccc tgggagctgt ggtttgaggg
 660
 aatgaaggca aggcgggcac ctctcgtgc tggccagaca aaccagctgc tcttgtagtg
 720
 gcttctctgc ttgcttctg aggagcctgc aactctacc caagccctgc agctggcagc
 780
 actgtggcct ctgcctcttg gctggtggag tcttggtccc ccggagtcac tgtagttggg
 840
 gtgactgaag gcagcagcaa gctggggccc atgctgctct ccacctcatc aggtgagnna
 900
 gaaaagtcaac ggacctgagg cttgcttctc tcttgggatc cattcacagg gacgagctcc
 960
 tctcttctct cctctcttg tttctetacc tcttcttct cctctctctc ccttccagc
 1020
 gt
 1022

<210> 2796

<211> 56

<212> PRT

<213> Homo sapiens

<400> 2796

Ala	Ser	Ala	Ala	Cys	Pro	Ser	Arg	Ser	Cys	Trp	Leu	Arg	Ser	Ser	Cys
1				5					10					15	
Pro	Lys	Val	Ala	Glu	Glu	Gly	Val	Ser	Ser	Met	Ser	Pro	Gly	Ala	Ser
			20					25					30		
Gly	Glu	Glu	Ala	Glu	Val	Leu	Glu	Pro	Arg	Gly	Ser	Ser	Ser	Gly	Cys
			35				40						45		
Ser	Ala	Pro	Leu	Gly	Ala	Val	Val								
			50				55								

<210> 2797

<211> 475

<212> DNA

<213> Homo sapiens

<400> 2797

cggccgctgc tgattgcctt cagcgctgc accacgggtc tggtagccgt gcacctgttc
 60
 gccctctca tcagacctg catcctgcc aatgtggagg ccgtgagcaa catccacaac
 120

ctgaactcca tcagcgagtc cccgcatgag cgcattgcacc cctacatcga gctggcctgg
 180
 ggcttctcca ccgtgcttgg cactctactc ttccctggccg aggtgggtgct gctctgctgg
 240
 atcaagttcc tccccgtgga tgccccggcg cagcctggcc cccacactgg ccttgggagt
 300
 cacacgggct ggcaggcgcc cctgggtgtcc accatcatca tgggtcccggt gggcctcatc
 360
 ttctgggtct tcacatcca cttctacgcg tccctgggtgc gccacaaaac ggagcgccac
 420
 aacgcgaga tcgaggagct ccacaagctc aaggctccagc tggacgggca tgagc
 475

<210> 2798

<211> 158

<212> PRT

<213> Homo sapiens

<400> 2798

Arg	Pro	Leu	Leu	Ile	Ala	Phe	Ser	Ala	Cys	Thr	Thr	Val	Leu	Val	Ala
1				5					10					15	
Val	His	Leu	Phe	Ala	Leu	Leu	Ile	Ser	Thr	Cys	Ile	Leu	Pro	Asn	Val
				20				25				30			
Glu	Ala	Val	Ser	Asn	Ile	His	Asn	Leu	Asn	Ser	Ile	Ser	Glu	Ser	Pro
		35				40					45				
His	Glu	Arg	Met	His	Pro	Tyr	Ile	Glu	Leu	Ala	Trp	Gly	Phe	Ser	Thr
	50				55					60					
Val	Leu	Gly	Ile	Leu	Leu	Phe	Leu	Ala	Glu	Val	Val	Leu	Leu	Cys	Trp
65				70				75						80	
Ile	Lys	Phe	Leu	Pro	Val	Asp	Ala	Arg	Arg	Gln	Pro	Gly	Pro	Pro	Pro
				85				90					95		
Gly	Pro	Gly	Ser	His	Thr	Gly	Trp	Gln	Ala	Ala	Leu	Val	Ser	Thr	Ile
		100					105					110			
Ile	Met	Val	Pro	Val	Gly	Leu	Ile	Phe	Val	Val	Phe	Thr	Ile	His	Phe
	115					120					125				
Tyr	Arg	Ser	Leu	Val	Arg	His	Lys	Thr	Glu	Arg	His	Asn	Arg	Glu	Ile
	130				135					140					
Glu	Glu	Leu	His	Lys	Leu	Lys	Val	Gln	Leu	Asp	Gly	His	Glu		
145				150						155					

<210> 2799

<211> 2872

<212> DNA

<213> Homo sapiens

<400> 2799

ntatcttctg attcatctgt ggggtttcgg ttggaatga ccagcttgca aggcaggggc
 60
 aatgggtaga tggagtgcgt gtgaccagg gcagacagcg atccgaagt ttggtcattg
 120
 gggcagccct tgagcttgac tcctctgggg ccagtcctcta tcagaaaatg cctgaccagc
 180
 tcatgggtca tgtctccttt ttattctgc tgcattgatg ttggaggtgg cgaagacacc
 240

ttcatggcca gcccgtacaa gcttgagatc tccagggagc aggccatcgc gtcctcacaag
300
gaccaggagc cgggggcctt catcatccgc gacagtcact cctccgaggc cgcgtacggg
360
ctggccatga aggtgtcttc gccacctcca accatcatgc agcagaataa aaaaggagac
420
atgacccatg agctgggtcag gcatctttctg atagagactg gccccagagg agtcaagctc
480
aagggctgcc ccaatgagcc aaacttcgga tcgctgtctg cctgggtcta ccagcactcc
540
atcatcccat tggccctgcc ttgcaagctg gtcattccaa accgagaccc cacagatgaa
600
tcgaaagata gctccggccc tgccaactca actgcagacc tgctgaaaca aggggcagcc
660
tgcaatgtgc tcttcataca ctctgtggac atggagtcac tcactggggc acaggccatc
720
tctaaagcca catctgagac gttgggtgca gacccacgc cagctgccac catcgttcac
780
ttcaaagtct ctgccaggc aatcactctg actgacaacc agagaaagct ttttttcaga
840
cgccactacc ctctcaacac tgtcaccttc tgtgacctgg atccacagga aagaaagtgg
900
atgaaaaacag aggggtgtgc ccttgctaag ctcttcggct tcgtggcccg gaagcagggc
960
agcaccacgg acaacgcctg ccacctctt gctgagcttg acccaacca gccgcctct
1020
gccatcgtca actctgtctc caaggtcatg ctgaatgccg gccaaaagag atgaacctg
1080
ccccttgccc agggccagtg ccatggggaa ggggcttgtg gggaggggac ccatgaatcc
1140
tgaccactct tgaaccaga aggaggactt tgggccaatt tcggaggaga gaagaaagt
1200
caactgtggg agaggggaag gaattgcaga ggggaggggg aaaagagaga gagagagaga
1260
gagagagaga gagagagaga gagaagatg gaggagaaga acttggattc ccctgggtag
1320
atggaaactg caaaaaccca aagcctccaa aactaaccag gtccacctaa caccctctc
1380
ctcccctaag aagatggatg tctcctaaag agaaggaaca aacctccttg ggaatccaca
1440
ttttttgggg gaatggaaaa gctctgtctc cctaactcaa ctgctttgca aggggaaatc
1500
aagctgggag aatctttttc tggccacctg tggggtagggt tgtcaacca aacagagcca
1560
cgtgggaca tcaagtggaa gaacttggtt gcttgaagt atctcagacc caaggcacct
1620
caggtctctt tgctgtgcct ccactatatt gtcgtgtggg tgtgtgtctg caccacatc
1680
ctcacacatt gatctagatc tgcccttata cactcgaatt ataaacagct cggctgtgtc
1740
tgttcccatg tgtttttaga cacacatgca tactgtccaa agattagggt tgggtgtggc
1800
agtgcagcag gggagggaca aacaaccaag ctatgggtga cagaggctct ctctcgtgtg
1860

ctgcacctgc actctagtga ccctgggtgc cggcagaccc ttctcttcta caaagacccc
 1920
 agcaggagtg ggaggggtctg caatggcatc gccctgtcct gccttggtcca gaagcctgga
 1980
 gctttgggtt gaggaggtag agatatgtgt atccatagga agagatctgt cagaacaggc
 2040
 agctgttgag ctccgggtgt ctccccaag gcatgtggct cagcagcaag aaaggcaagt
 2100
 tgctcctgct ggggccctgg actctgcctt agctcccacc tctcagcctt gttattgggt
 2160
 ttcatgcccc tggaccagcc ttatctcaga cctgcttacc tgcattgatgc ctttttgggg
 2220
 gctggggatt gagtcttgct gctctgcccc gccctgttct attctgcagg gtccctgtgt
 2280
 tgggaattctc cctggggaac ctactttctg ctcatgtagg ctccggccag aaacctggag
 2340
 tccttatcct cccctctgta agtggttttg ggtctggctt ttgcaggcac cctctgacct
 2400
 cagcagagct cctgggacct ctgcctgcac accacatcgc ctacctacaa tgccaaaggc
 2460
 tcaactgtcac cctttctgcc ttgggtttccc tagctgagcc acgctgcccc tgcagcagag
 2520
 ggcagaaggc ttgcacttgg gccaaagggc ctaagggtcca ctggacagtt gggaaaacac
 2580
 ctgaccacca tttaaggact ctaagccaga atggaaaaat caccaggact ccattcttaa
 2640
 gcctatgcga gtcccctaga gagaggcatt gtactgatat ataaatatta tataatatat
 2700
 acatgagaca tactgacaga atctgtaagc taataaaatg taagaaaagg ttaaaaaaag
 2760
 aataggtaaa ttgacaagaa gtattttatt tttttccata ttgctttatt gccttccttg
 2820
 gggataaacc aattcctatc cttttttata tgtgtaagta aagcctgaag tg
 2872

<210> 2800

<211> 294

<212> PRT

<213> Homo sapiens

<400> 2800

Met Ser Pro Phe Leu Phe Cys Cys Met Met Val Gly Gly Gly Glu Asp
 1 5 10 15
 Thr Phe Met Ala Ser Pro Tyr Lys Pro Glu Ile Ser Arg Glu Gln Ala
 20 25 30
 Ile Ala Leu Leu Lys Asp Gln Glu Pro Gly Ala Phe Ile Ile Arg Asp
 35 40 45
 Ser His Ser Phe Arg Gly Ala Tyr Gly Leu Ala Met Lys Val Ser Ser
 50 55 60
 Pro Pro Pro Thr Ile Met Gln Gln Asn Lys Lys Gly Asp Met Thr His
 65 70 75 80
 Glu Leu Val Arg His Phe Leu Ile Glu Thr Gly Pro Arg Gly Val Lys
 85 90 95
 Leu Lys Gly Cys Pro Asn Glu Pro Asn Phe Gly Ser Leu Ser Ala Leu

	100		105		110
Val Tyr Gln His Ser Ile Ile Pro Leu Ala Leu Pro Cys Lys Leu Val					
115		120		125	
Ile Pro Asn Arg Asp Pro Thr Asp Glu Ser Lys Asp Ser Ser Gly Pro					
130		135		140	
Ala Asn Ser Thr Ala Asp Leu Leu Lys Gln Gly Ala Ala Cys Asn Val					
145		150		155	160
Leu Phe Ile Asn Ser Val Asp Met Glu Ser Leu Thr Gly Pro Gln Ala					
165		170		175	
Ile Ser Lys Ala Thr Ser Glu Thr Leu Ala Ala Asp Pro Thr Pro Ala					
180		185		190	
Ala Thr Ile Val His Phe Lys Val Ser Ala Gln Gly Ile Thr Leu Thr					
195		200		205	
Asp Asn Gln Arg Lys Leu Phe Phe Arg Arg His Tyr Pro Leu Asn Thr					
210		215		220	
Val Thr Phe Cys Asp Leu Asp Pro Gln Glu Arg Lys Trp Met Lys Thr					
225		230		235	240
Glu Gly Gly Ala Pro Ala Lys Leu Phe Gly Phe Val Ala Arg Lys Gln					
245		250		255	
Gly Ser Thr Thr Asp Asn Ala Cys His Leu Phe Ala Glu Leu Asp Pro					
260		265		270	
Asn Gln Pro Ala Ser Ala Ile Val Asn Phe Val Ser Lys Val Met Leu					
275		280		285	
Asn Ala Gly Gln Lys Arg					
290					

<210> 2801

<211> 549

<212> DNA

<213> Homo sapiens

<400> 2801

ggggcaagtg tcagtcagga cgggagtcgc gcgggttaca gcggaggcct aggtggcaga
 60
 cagggggccc gggcgctgc gtgtgtgccca ccaagatgg agttcctcct ggggaaccg
 120
 ttacgacac cagtggggca gtgcctcgaa aaggcaacag atggctccct gcaaatgtg
 180
 gattggacgt tgaatatgga gatctgtgac atcatcaatg agacggagga agggccaaag
 240
 gatgccattc gagccctgaa gaagcggctc aacgggaacc ggaactacag agaggtgatg
 300
 ctggcattaa cagtgtgga gacatgtgtg aagaactgtg gccaccgctt ccacatcctt
 360
 gtggccaacc gagatttcac cgacagtgtt ctggtcaaaa ttatatctcc caagaacaac
 420
 cctcccacca ttgtacagga caaagtgcct gctctgatcc aggcattggc tgaatgcctt
 480
 cgaagcagtc ctgatctcac cggcgttgtg cacatatatg aggagctgaa gaggaaggg
 540
 gttgaattc
 549

<210> 2802

<211> 151

<212> PRT

<213> Homo sapiens

<400> 2802

```

Met Glu Phe Leu Leu Gly Asn Pro Phe Ser Thr Pro Val Gly Gln Cys
 1           5           10           15
Leu Glu Lys Ala Thr Asp Gly Ser Leu Gln Ser Glu Asp Trp Thr Leu
 20           25           30
Asn Met Glu Ile Cys Asp Ile Ile Asn Glu Thr Glu Glu Gly Pro Lys
 35           40           45
Asp Ala Ile Arg Ala Leu Lys Lys Arg Leu Asn Gly Asn Arg Asn Tyr
 50           55           60
Arg Glu Val Met Leu Ala Leu Thr Val Leu Glu Thr Cys Val Lys Asn
 65           70           75           80
Cys Gly His Arg Phe His Ile Leu Val Ala Asn Arg Asp Phe Ile Asp
 85           90           95
Ser Val Leu Val Lys Ile Ile Ser Pro Lys Asn Asn Pro Pro Thr Ile
100           105           110
Val Gln Asp Lys Val Leu Ala Leu Ile Gln Ala Trp Ala Asp Ala Phe
115           120           125
Arg Ser Ser Pro Asp Leu Thr Gly Val Val His Ile Tyr Glu Glu Leu
130           135           140
Lys Arg Lys Gly Val Glu Phe
145           150

```

<210> 2803

<211> 459

<212> DNA

<213> Homo sapiens

<400> 2803

```

nccatggcca cgctgggct ccagcagcat cagcagcccc caggaccggg gaggcacagg
60
tggccccac caccggagg agcagctct gccctgttc ggggatgac tgattctct
120
ccgccagccg tagggtgtgt gctgtccggg ctcacgggga cctgtctcc gactgttcg
180
tgacagctgt gtaccagccc ttctcacc cactgcgacgg gcaccgggcc tgcagcacct
240
accgcaatat gccagccgcc atgccggaac ggaggagct gtgtccagcc tggccgctgc
300
cgtgccctg caggatggcg gggtgacct tgccagtcag atgtggacna gtgcaatgaa
360
ggaagaagtg cagaggtctgc agtccaggtt ggacctgctg gaggagaagc tgcagctggt
420
actggcccca ctgcacagcc tggcctcgca ggcactgga
459

```

<210> 2804

<211> 153

<212> PRT

<213> Homo sapiens

<400> 2804

Xaa Met Ala Thr Pro Gly Leu Gln Gln His Gln Gln Pro Pro Gly Pro
 1 5 10 15
 Gly Arg His Arg Trp Pro Pro Pro Gly Gly Ala Ala Pro Ala Pro
 20 25 30
 Val Arg Gly Met Thr Asp Ser Pro Pro Ala Val Gly Cys Val Leu
 35 40 45
 Ser Gly Leu Thr Gly Thr Leu Ser Pro Ser Arg Ser Cys Ser Val Cys
 50 55 60
 Thr Ser Pro Ser Ser Pro Pro Ala Thr Gly Thr Gly Pro Ala Ala Pro
 65 70 75 80
 Thr Ala Ile Cys Gln Pro Pro Cys Arg Asn Gly Gly Ser Cys Val Gln
 85 90 95
 Pro Gly Arg Cys Arg Cys Pro Ala Gly Trp Arg Gly Asp Thr Cys Gln
 100 105 110
 Ser Asp Val Asp Xaa Cys Asn Glu Gly Arg Ser Ala Glu Ala Ala Val
 115 120 125
 Gln Gly Gly Pro Ala Gly Gly Glu Ala Ala Ala Gly Thr Gly Pro Thr
 130 135 140
 Ala Gln Pro Gly Leu Ala Gly Thr Gly
 145 150

<210> 2805

<211> 771

<212> DNA

<213> Homo sapiens

<400> 2805

nnaaatttct gtgtggtgga gctgctgcct agtgatcctg agtacaacac ggtggcaagc
 60
 aagttttaac agacctgctc acatttcaga atagagaaga ttgagaggat ccagaatcca
 120
 gatctctgga atagctacca ggcaaaagaaa aaaactatgg atgccaagaa tggccagaca
 180
 atgaatgaga agcaactctt ccatgggaca gatgccggct ccgtgccaca cgtcaatoga
 240
 aatggcctta accgcagcta tgccggaaag aatgctgtgg catatggaaa gggaacctat
 300
 tttgctgtca atgccaatta ttctgccaat gatacgtact ccagaccaga tgcaaatggg
 360
 agaaagcatg tgtattatgt gcgagtactt actggaatct atacacatgg aaatcattca
 420
 ttaattgtgc ctcttcaaaa gaacctccaa aatctactg acctgtatga cactgtccaca
 480
 gataatgtgc accatccaag tttattttgt gcattttatg actaccaagc ataccagag
 540
 taccttatta cgttttagaaa ataacacttt ggtatccttc ccacaaaatt atttccatt
 600
 tgtacatata tagttgtaaa acaagtttta gctttttttt ttaattcctc ttaacagatt
 660
 tttctaataa ccaaggatca ttctttgtcg ctgcagtcag atctttcttc agctctctct
 720
 tcataatgga aatgaactta ttatcttgag agccaaaataa ctgggaaatt t
 771

<210> 2806
 <211> 187
 <212> PRT
 <213> Homo sapiens

<400> 2806
 Xaa Asn Phe Cys Val Val Glu Leu Leu Pro Ser Asp Pro Glu Tyr Asn
 1 5 10 15
 Thr Val Ala Ser Lys Phe Asn Gln Thr Cys Ser His Phe Arg Ile Glu
 20 25 30
 Lys Ile Glu Arg Ile Gln Asn Pro Asp Leu Trp Asn Ser Tyr Gln Ala
 35 40 45
 Lys Lys Lys Thr Met Asp Ala Lys Asn Gly Gln Thr Met Asn Glu Lys
 50 55 60
 Gln Leu Phe His Gly Thr Asp Ala Gly Ser Val Pro His Val Asn Arg
 65 70 75 80
 Asn Gly Phe Asn Arg Ser Tyr Ala Gly Lys Asn Ala Val Ala Tyr Gly
 85 90 95
 Lys Gly Thr Tyr Phe Ala Val Asn Ala Asn Tyr Ser Ala Asn Asp Thr
 100 105 110
 Tyr Ser Arg Pro Asp Ala Asn Gly Arg Lys His Val Tyr Tyr Val Arg
 115 120 125
 Val Leu Thr Gly Ile Tyr Thr His Gly Asn His Ser Leu Ile Val Pro
 130 135 140
 Pro Ser Lys Asn Pro Gln Asn Pro Thr Asp Leu Tyr Asp Thr Val Thr
 145 150 155 160
 Asp Asn Val His His Pro Ser Leu Phe Val Ala Phe Tyr Asp Tyr Gln
 165 170 175
 Ala Tyr Pro Glu Tyr Leu Ile Thr Phe Arg Lys
 180 185

<210> 2807
 <211> 1660
 <212> DNA
 <213> Homo sapiens

<400> 2807
 tttttttttt ttttttttta aatgacacca gagggcttca ttgcagggtca ataggcctgt
 60
 caccatcacc ccacagcgag caagtctttt gtccctcag ctccctgcgac aaagtccagaa
 120
 ccagggtgct caggggccgcc tgtgaatgca ggtgccttgt cccaaacaga ggacatatta
 180
 atagggccat gatttcctgt tgccacaatt ttgccaaaggc aggctggcac cagaacacca
 240
 aagaagggaa attatagtgg agtagcagtt tgtgaatctg gagtccctgg ttcaatcaca
 300
 gaacaagtag ggagaggagc caggacctag gccttcaggt tttcagcaag gaaggactct
 360
 caggcccatcc ttgcagttca gttaacagga ggaagcaagg atcccagag agctggagta
 420
 ctctgactct cggatagaaa ggcaggacaa tcggagcctg ggggttcacgt gagtccaggaa
 480

agggagctct ccacactgga atcgctgtag cggaggaggt tctaattggga cgtatttcga
 540
 cggtttccct tccagctcaa aagaaagcac aataggacgg aggacagagg ggctagtaca
 600
 aagtggtccag aggaacatgg tcatgggctc gtcaaccctg gctgaagact caagttgggc
 660
 tccaggccct gcaaaactgca agaccactct gcctggcact tggacgaaat ctaggaggga
 720
 ggccactct ctaggacaca gccctagtgc tgcgtccaca tgggtgatcc tacaggctac
 780
 cagcgcttcg cgagtcctcat cctccaccag gagcctgatg atggcctggc ttagctgt
 840
 ctgcgtaggg caagtggagc ccaggcgagt gcactttccc tgcgggcaga tgcgtgtaca
 900
 ataagcacac acccagaaga gctgaaggct gaagacagag acgatatggc aagaggcagt
 960
 ggcttggaaat ggggactgac caccctgcag aagttcagcc aggtagatgt ggggcagggg
 1020
 aacgctgatg gtggtctcag ggggaaaact caggacctgc acataagtgg atgaccggaa
 1080
 acaacaataa acattgtgag atctggaaac ctttttctcc aactggctga agtggacccg
 1140
 ggctcctgga agtagtecta gtgaggagg caagtgtggg tcttctatat atacatccag
 1200
 gtgagggggg aatcacatt cagcagcttc aagagcgact gttagcttca cacaccttct
 1260
 catggccccc gtgttcccca gtttcatcca gagagacgac acaaggggtt cacatagtgt
 1320
 ccgtgacaaa atctcagcgg agaaagacac caaggaatct gtgaaattgt cactgagcag
 1380
 gtcggtcagt gaggattcag gcaatgactt gtttgcatec agcacatctt ggatatcctg
 1440
 ggagctttca agctccagag tccagttgtc ctggacagtg aggcaggatg cacaaccagc
 1500
 caactccaga ggcgcgcgag atatgcagga tgaacctccc ttttcaaaca acattggtgt
 1560
 agcggggcca ggagctacga gtcggtacac ctgtcccggt tgcaagaact caaaccagcg
 1620
 gactgaagag ccaaagaaaa tgagggtgaac cctctgatca
 1660

<210> 2808

<211> 390

<212> PRT

<213> Homo sapiens

<400> 2808

Met Leu Phe Glu Lys Asp Gly Ser Ser Cys Ile Ser Arg Arg Pro Leu
 1 5 10 15
 Glu Leu Ala Gly Cys Ala Ser Cys Leu Thr Val Gln Asp Asn Trp Thr
 20 25 30
 Leu Glu Leu Glu Ser Ser Gln Asp Ile Gln Asp Val Leu Asp Ala Asn
 35 40 45
 Lys Ser Leu Pro Glu Ser Ser Leu Thr Asp Leu Leu Ser Asp Asn Phe

50	55	60
Thr Asp Ser Leu Val Ser Phe Ser Ala Glu Ile Leu Ser Arg Thr Leu		
65	70	75
Cys Glu Pro Leu Val Ala Ser Leu Trp Met Lys Leu Gly Asn Thr Gly		80
	85	90
Ala Met Arg Arg Cys Val Lys Leu Thr Val Ala Leu Glu Thr Ala Glu		95
	100	105
Cys Glu Phe Pro Pro His Leu Asp Val Tyr Ile Glu Asp Pro His Leu		110
	115	120
Pro Pro Ser Leu Gly Leu Leu Pro Gly Ala Arg Val His Phe Ser Gln		125
	130	135
Leu Glu Lys Arg Val Ser Arg Ser His Asn Val Tyr Cys Cys Phe Arg		140
	145	150
Ser Ser Thr Tyr Val Gln Val Leu Ser Phe Pro Pro Glu Thr Thr Ile		155
	160	165
Ser Val Pro Leu Pro His Ile Tyr Leu Ala Glu Leu Leu Gln Gly Gly		170
	175	180
Gln Ser Pro Phe Gln Ala Thr Ala Ser Cys His Ile Val Ser Val Phe		185
	190	195
Ser Leu Gln Leu Phe Trp Val Cys Ala Tyr Cys Thr Ser Ile Cys Arg		200
	205	210
Gln Gly Lys Cys Thr Arg Leu Gly Ser Thr Cys Pro Thr Gln Thr Ala		215
	220	225
Ile Ser Gln Ala Ile Ile Arg Leu Leu Val Glu Asp Gly Thr Ala Glu		230
	235	240
Ala Val Val Thr Cys Arg Asn His His Val Ala Ala Ala Leu Gly Leu		245
	250	255
Cys Pro Arg Glu Trp Ala Ser Leu Asp Phe Val Gln Val Pro Gly		260
	265	270
Arg Val Val Leu Gln Phe Ala Gly Pro Gly Ala Gln Leu Glu Ser Ser		275
	280	285
Ala Arg Val Asp Glu Pro Met Thr Met Phe Leu Trp Thr Leu Cys Thr		290
	295	300
Ser Pro Ser Val Leu Arg Pro Ile Val Leu Ser Phe Glu Leu Glu Arg		305
	310	315
Lys Pro Ser Lys Ile Val Pro Leu Glu Pro Pro Arg Leu Gln Arg Phe		320
	325	330
Gln Cys Gly Glu Leu Pro Phe Leu Thr His Val Asn Pro Arg Leu Arg		335
	340	345
Leu Ser Cys Leu Ser Ile Arg Glu Ser Glu Tyr Ser Ser Ser Leu Gly		350
	355	360
Ile Leu Ala Ser Ser Cys		365
	370	375
	380	
385	390	

<210> 2809

<211> 1502

<212> DNA

<213> Homo sapiens

<400> 2809

ncatttttttg gcattttgtgt ttagaaccagg gaggaaggcg gaaggtaggg agggagggct

60

ggccccctc tgagggggct ctagtgcctg acctgatct gtccctattc gacagctgaa

120

actgttaagc gctggcccag tccccccacc ccaccagcc gtgtactgcc tgggctcccc
 180
 tcaaaggga atttttacgg aaacatcttg gcagcaagtg gaaaaagatc tatggcccat
 240
 gaaccactg aaaactccaa gaaccctctg tctgcctctg ccagcagcga gtcttaagcg
 300
 cagaatccag agctcgtagc tgtcctcagc tgtaactact gtctcagaat gttgctgctg
 360
 catacatttg tcatgtcagc cagccagctc cgtgggtgag agtggtgctg tgcgcgtgct
 420
 tgtgtgtgtg tgcgtctgtg tgtgctgtgc tgtgtgtgtg cactgtctgt cgtctgtgtg
 480
 tgcgcgtctg tgtgcgcgtg tgtctgtgct tgtgtgctgc tgtgtgtgct tctgtgctgc
 540
 tgtgtgtgct cgtctgtgtg tatgtgtgca cgcgcctgct tctgtgtgtg cactgtgctg
 600
 nntctctgca cgcgtgtctg tgtatgtgtg cactgtgtgt tctgtgtgtg tgcacgcgtg
 660
 tgacgtcac caccggagca tttagggttt ggtacaagat ggttctaaaa tggcaaaagg
 720
 ttttcgtgtt tgtttgtttt gtttcttttg aaaaagaaaa ggaagagaaa atcatgcaga
 780
 atcgcaagca ttcagactgg acgacgcctc cgtattccga tcagtcgctt ccatgtttag
 840
 catcgtcac gatttgtgatt tttatgtcaa aagaagccaa aacttgcaat actattttta
 900
 gcagacaaaa aaaagaacta agtataaaat gtataaatat ttttgacttg aacatttgga
 960
 tggcactggg tgcaagtaga gcatccatcc ttcggatgga atgttttgaa aaaagagact
 1020
 tttaaaaagg agacggttgt tttaaagagt ctgtttaggg gttaaagrac tgtaactcac
 1080
 gactgttaaa aaataaattt tctgtgtctg taaaggaagg ttccacagta ccactgagtt
 1140
 agatttcagc cacagatgct tagctttttt tttttgtctt ttttttaagg aggaagcctt
 1200
 tgttttgttt tcttgagccc tcaactctgt tttgtgctgt tactcggtag agtcaagact
 1260
 gttacttttt agccatggct gacattgtat caataactaa aactgaaaca ttcaaaagcg
 1320
 aacagggaaa cagagggtct caagcgtgct cagagccgtt tcagacagtg gaaatccatg
 1380
 acaaacaaaa ggtatgtgac attaattgta aagcgtcttg taaaattcac attracaaaa
 1440
 taataaagtc agttcaaac taaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 1500
 aa
 1502

<210> 2810

<211> 102

<212> PRT

<213> Homo sapiens

<400> 2810
 Glu Cys Ala Cys Ala Arg Val Cys Val Cys Val Arg Leu Cys Val Arg
 1 5 10 15
 Val Cys Val Cys Ala Arg Leu Cys Val Cys Val Cys Ala Ser Val Cys
 20 25 30
 Ala Cys Val Cys Ala Cys Val Arg Leu Cys Val Arg Leu Cys Ala Cys
 35 40 45
 Val Cys Ala Ser Val Cys Met Cys Ala Arg Ala Xaa Val Cys Val Cys
 50 55 60
 Thr Cys Val Xaa Leu Cys Thr Arg Val Cys Val Cys Val His Ala Cys
 65 70 75 80
 Val Cys Val Cys Ala Arg Ala Cys Thr Ser Pro Pro Glu His Leu Gly
 85 90 95
 Phe Gly Thr Arg Trp Phe
 100

<210> 2811
 <211> 591
 <212> DNA
 <213> Homo sapiens

<400> 2811
 nnacgcgtgt aggttgggtg cacttacaag taagtataaa ctgctcttca attcaagttt
 60
 attaatgctg cccaccccca gggtttttaac cgggtctggg cagaagcggg cgataaaagc
 120
 caaaggagac cataaagtgt aggatatttc ctggttagtg gctgccgggt aatcacgatg
 180
 catccatctt cctcggcgct gcagccctca gtatccagaa ggcagctctc ttccctgggg
 240
 ggcaaaaagcc ccgagcccg cctgcccngt tgcgccgctc ccgcggtgga tgaacctcaa
 300
 cccnnttccc aggtcctctc tggccccagg gtcccaggac ccccgagacc ctgggggtgcg
 360
 gcgccactga gggccagacc gggggaagga gacctgtca ctcgggagcg gagccctgtc
 420
 ccgggagcga cggaaatgcc tcctccacgc ccaaggttc ctgctccgcc agggcccaacc
 480
 ggaaggagtc ctcgggccgc agtggggcac caccgggccc ccggccctcc aggtctcgctg
 540
 gggcctcttc tcagtgggca actggggagc tagcccgggg cggccgcaag c
 591

<210> 2812
 <211> 131
 <212> PRT
 <213> Homo sapiens

<400> 2812
 Met His Pro Ser Ser Ser Ala Ser Gln Pro Ser Val Ala Arg Arg Gln
 1 5 10 15
 Ser Pro Ser Leu Gly Gly Lys Ser Pro Glu Pro Ser Leu Pro Xaa Cys
 20 25 30
 Pro Ala Pro Ala Val Asp Glu Pro Gln Pro Xaa Ser Gln Ala Pro Pro

	35		40		45	
Gly	Pro	Arg	Val	Pro	Gly	Pro
50					55	
Arg	Pro	Arg	Pro	Gly	Glu	Asp
65				70		
Val	Pro	Gly	Ala	Thr	Glu	Met
				85		
Pro	Pro	Gly	Pro	Thr	Gly	Arg
				100		
Arg	Ala	Ala	Gly	Pro	Pro	Gly
				115		
Leu	Gly	Ser				
130						

<210> 2813
 <211> 2417
 <212> DNA
 <213> Homo sapiens

<400> 2813
 ntcgatgatct cattcacaat attggtgggc cctgagagtg gagcagtgga gtgattgacg
 60
 tgccctgagtt tgaagagagt taaccactgg aatctctcat gttgtttatt cccctccaaaa
 120
 tgctgcagtt cagtgttgct ccagatttta tgctgtgct tagatttctc tgttctctaa
 180
 ttgtttaagt ttgtctttaa tatttcacag gctttcttga tcatggatgg tgaagatata
 240
 ccagattttt caagttaa ggaggaaact gcttattgga aggaactttc cttgaagtat
 300
 aagcaaagct tccaggaagc tcgggatgag ctagtgtgaat tccaggaagg aagcagagaa
 360
 ttagaagcag agttggaggc acaattagta caggctgaac aaagaaatag agacttgacg
 420
 gctgataacc aaagactgaa atatgaagtg gaggcattaa aggagaagct agagcatcaa
 480
 tatgcacaga gctataagca ggtctcagtg ttagaagatg atttaagtca gactcgggcc
 540
 attaaggagc agttgcataa gtatgtgaga gagctggagc agccaacga cgacctggag
 600
 cgagccaaaa gggcaacaat agtttctact gaaactttga acaactaaa ccaggccatt
 660
 gaacgaaatg cattttttaga aagtgaactt gatgaaaagg aatctttgtt ggtctctgta
 720
 cagagggttaa aggatgaagc aagagattta aggcaagaac tagcagttcg gaaagacaa
 780
 caggaagtaa ctagaaagtc ggctcctagc tctccaactc tagactgtga aaagatggac
 840
 tccgcccgtcc aagcatcact ttctttgcc gctacccttg ttggcaaagg aacggagaac
 900
 acttttctct caccgaaagc tataccaaaat ggttttggta ccagtccact aactccctct
 960
 gctaggatat cagcactaaa catcgtgggg gatctcttac gaaagtagg ggctttagaa
 1020

tccaaattag cagcttgag gaattttgca aaggaccaag catcacgaaa atcctatat
1080
tcagggaatg ttaactgtgg ggtgctgaat ggcaatggca caaagttctc tcatcaggg
1140
catacatctt tcttcgacaa aggggcagta aacggccttg accccgctcc tectctctct
1200
ggtctgggct cctcgctcc atcgtcagcg ccgggtatgt gcctctcagt gtgtgagtg
1260
ctagcctcca ggggggctcc tgccctctcc caacaaccca ggacacccac gcctcacccc
1320
tcgggtgcctg gggccagccc cgtgcccctc cgtctgctcc cgcacggctg cgagagggca
1380
ggctgcagtc agtggcggct actgggcccct gccagcccc ggaactctgc gcgatatcaa
1440
tactggctat tttctcttct cgcgtagtg ccgttggttt cacatgattg cacttttgtg
1500
ggctcgcaagg tgatacatc gtgtattact tggctactgg atgcagaagt acccattcat
1560
cacacctgcc ccatagcccc cactctgctg tactgatagg atttagtgt gttttaggac
1620
attgcaaatc tcttagaagt tctcccccaa atcagggtcaa tgtgtgcctt cctgagctcc
1680
cacccaggca tctccagtgc tcatgatcat gtgtccccc actccacccc tcacagtttg
1740
ggcctgttct tggcaaagag tcagggaagg tactgaatta gggaacattt tctgcacctt
1800
ctgattttac ttaagcagct accattccat ggacttgctt ccagagcag cacaatgccc
1860
gtctgagccc cactggcag gacgctctgg gacggggcac acacaggccc agcctctgtg
1920
ctgtctctct ctctgtgcgc ctgagactcg gggtagggga ggccgggcag ctctcgccag
1980
ccttcccgct cttcagttca acgacatctt tggagtgttt ttgtttctc ttccaaaggc
2040
cgtcccgctg tgttaggaag ggtgagtggc tgggtccagg gtgggccggt gccagctccg
2100
gggtgggactg aacagcggcg gctgtccctg tgcacctctt gattactctc atgtgcat
2160
tactgttac atttgtttta ttgtacatag gtttgaatac attattgcct gagatatttg
2220
tatataactt gggctttgta gcttttattt attcagaacg catacggcat gttaatgact
2280
ctgattggtg cctcctctgg gcagctgtat aggatcatca tgtggttaca aaaaatactt
2340
ccctcaaaaa aattctttta atgtggaaac aataaatttc acagaaaaaa aaaaaaaaaa
2400
aaaaaaaaaa aaaaaaa
2417

<210> 2814

<211> 471

<212> PRT

<213> Homo sapiens

<400> 2814

Phe Val Lys Phe Val Phe Asn Ile Ser Gln Ala Phe Leu Ile Met Asp
 1 5 10 15
 Gly Glu Asp Ile Pro Asp Phe Ser Ser Leu Lys Glu Glu Thr Ala Tyr
 20 25 30
 Trp Lys Glu Leu Ser Leu Lys Tyr Lys Gln Ser Phe Gln Glu Ala Arg
 35 40 45
 Asp Glu Leu Val Glu Phe Gln Glu Gly Ser Arg Glu Leu Glu Ala Glu
 50 55 60
 Leu Glu Ala Gln Leu Val Gln Ala Glu Gln Arg Asn Arg Asp Leu Gln
 65 70 75 80
 Ala Asp Asn Gln Arg Leu Lys Tyr Glu Val Glu Ala Leu Lys Glu Lys
 85 90 95
 Leu Glu His Gln Tyr Ala Gln Ser Tyr Lys Gln Val Ser Val Leu Glu
 100 105 110
 Asp Asp Leu Ser Gln Thr Arg Ala Ile Lys Glu Gln Leu His Lys Tyr
 115 120 125
 Val Arg Glu Leu Glu Gln Ala Asn Asp Asp Leu Glu Arg Ala Lys Arg
 130 135 140
 Ala Thr Ile Val Ser Leu Glu Thr Leu Asn Lys Leu Asn Gln Ala Ile
 145 150 155 160
 Glu Arg Asn Ala Phe Leu Glu Ser Glu Leu Asp Glu Lys Glu Ser Leu
 165 170 175
 Leu Val Ser Val Gln Arg Leu Lys Asp Glu Ala Arg Asp Leu Arg Gln
 180 185 190
 Glu Leu Ala Val Arg Glu Arg Gln Gln Glu Val Thr Arg Lys Ser Ala
 195 200 205
 Pro Ser Ser Pro Thr Leu Asp Cys Glu Lys Met Asp Ser Ala Val Gln
 210 215 220
 Ala Ser Leu Ser Leu Pro Ala Thr Pro Val Gly Lys Gly Thr Glu Asn
 225 230 235 240
 Thr Phe Pro Ser Pro Lys Ala Ile Pro Asn Gly Phe Gly Thr Ser Pro
 245 250 255
 Leu Thr Pro Ser Ala Arg Ile Ser Ala Leu Asn Ile Val Gly Asp Leu
 260 265 270
 Leu Arg Lys Val Gly Ala Leu Glu Ser Lys Leu Ala Ala Cys Arg Asn
 275 280 285
 Phe Ala Lys Asp Gln Ala Ser Arg Lys Ser Tyr Ile Ser Gly Asn Val
 290 295 300
 Asn Cys Gly Val Leu Asn Gly Asn Gly Thr Lys Phe Ser Arg Ser Gly
 305 310 315 320
 His Thr Ser Phe Phe Asp Lys Gly Ala Val Asn Gly Phe Asp Pro Ala
 325 330 335
 Pro Pro Pro Gly Leu Gly Ser Ser Arg Pro Ser Ser Ala Pro Gly
 340 345 350
 Met Cys Leu Ser Val Cys Glu Cys Leu Ala Ser Arg Gly Ala Pro Ala
 355 360 365
 Leu Leu Gln Gln Pro Arg Thr Pro Thr Pro His Pro Ser Val Pro Gly
 370 375 380
 Pro Ser Pro Val Pro Leu Arg Leu Pro Pro His Gly Trp Gln Arg Ala
 385 390 395 400
 Gly Cys Met Gln Trp Arg Leu Leu Gly Pro Ala Gln Pro Arg Asn Ser
 405 410 415
 Ala Arg Tyr Gln Tyr Trp Leu Phe Ser Leu Leu Ala Val Val Pro Leu

gctgggatct tctctgtgaa tccaccctg gctaccccca ccctggctac cccaacggca
 1260
 tccaaggcc aggtgggccc tcagctgagg gaaggtacga gctccctgct ggagcctggg
 1320
 acccatggca caggccaggc agcccggagg ctgggtgggg cctcagtggg ggctgctgcc
 1380
 tgaccccccag cacaataaaa atgaaacgtg aaaaaaaaaa a
 1421

<210> 2816

<211> 307

<212> PRT

<213> Homo sapiens

<400> 2816

Met	Arg	Gly	Ser	Gln	Glu	Val	Leu	Leu	Met	Trp	Leu	Leu	Val	Leu	Ala
1			5					10						15	
Val	Gly	Gly	Thr	Glu	His	Ala	Tyr	Arg	Pro	Gly	Arg	Val	Val	Cys	Ala
			20					25					30		
Val	Arg	Ala	His	Gly	Asp	Pro	Val	Ser	Glu	Ser	Phe	Val	Gln	Arg	Val
		35					40					45			
Tyr	Gln	Pro	Phe	Leu	Thr	Thr	Cys	Asp	Gly	His	Arg	Ala	Cys	Ser	Thr
		50				55					60				
Tyr	Arg	Thr	Ile	Tyr	Arg	Thr	Ala	Tyr	Arg	Arg	Ser	Pro	Gly	Leu	Ala
		65			70				75					80	
Pro	Ala	Arg	Pro	Arg	Tyr	Ala	Cys	Cys	Pro	Gly	Trp	Lys	Arg	Thr	Ser
			85						90					95	
Gly	Leu	Pro	Gly	Ala	Cys	Gly	Ala	Ala	Ile	Cys	Gln	Pro	Pro	Cys	Arg
			100					105					110		
Asn	Gly	Gly	Ser	Cys	Val	Gln	Pro	Gly	Arg	Cys	Arg	Cys	Pro	Ala	Gly
		115					120					125			
Trp	Arg	Gly	Asp	Thr	Cys	Gln	Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	Arg
		130				135					140				
Arg	Gly	Gly	Cys	Pro	Gln	Arg	Cys	Val	Asn	Thr	Ala	Gly	Ser	Tyr	Trp
					150					155				160	
Cys	Gln	Cys	Trp	Glu	Gly	His	Ser	Leu	Ser	Ala	Asp	Gly	Thr	Leu	Cys
					165				170					175	
Val	Pro	Lys	Gly	Gly	Pro	Pro	Arg	Val	Ala	Pro	Asn	Pro	Thr	Gly	Val
			180					185					190		
Asp	Ser	Ala	Met	Lys	Glu	Glu	Val	Gln	Arg	Leu	Gln	Ser	Arg	Val	Asp
			195				200					205			
Leu	Leu	Glu	Glu	Lys	Leu	Gln	Leu	Val	Leu	Ala	Pro	Leu	His	Ser	Leu
			210			215						220			
Ala	Ser	Gln	Ala	Gly	Ala	Trp	Ala	Pro	Gly	Pro	Arg	Gln	Pro	Pro	Gly
					230					235				240	
Ala	Leu	Leu	Pro	Ala	Ala	Arg	Pro	His	Arg	Leu	Pro	Glu	Arg	Ala	Asp
				245					250					255	
Phe	Leu	Pro	Gly	Gly	Ala	Ala	Gly	Val	Leu	Leu	Gln	Glu	Arg	Leu	
			260				265					270			
Xaa	Asp	Cys	Pro	Ala	Pro	Gln	Ala	Gly	Leu	Ser	Pro	Ser	Arg	Arg	Pro
			275				280					285			
Ala	Ala	Pro	Met	Pro	Leu	Pro	Asn	Met	Leu	Gly	Val	Gln	Lys	Pro	Pro
			290			295					300				
Arg	Gly	Asp													

305

<210> 2817

<211> 219

<212> DNA

<213> Homo sapiens

<400> 2817

```

nntggctttt ctgtctctct ctcttttttt ctgttagatc acgagctgct caggcaagag
60
ctgaacacgc ggtttcttgt gcagagcgcc gagcggcctg gcgcctccct gggcccgagg
120
gttctgtctgc gggcggagtt ccatcagcac cagcacacac accagcacac gcaccaaacac
180
acacaccagc accaacacac attcgccccc ttcacgcgt
219

```

<210> 2818

<211> 73

<212> PRT

<213> Homo sapiens

<400> 2818

```

Xaa Gly Phe Ser Val Ser Leu Ser Phe Phe Leu Val Asp His Glu Leu
1           5           10           15
Leu Arg Gln Glu Leu Asn Thr Arg Phe Leu Val Gln Ser Ala Glu Arg
20           25           30
Pro Gly Ala Ser Leu Gly Pro Gly Val Leu Leu Arg Ala Glu Phe His
35           40           45
Gln His Gln His Thr His Gln His Thr His Gln His Thr His Gln His
50           55           60
Gln His Thr Phe Ala Pro Phe Thr Arg
65           70

```

<210> 2819

<211> 730

<212> DNA

<213> Homo sapiens

<400> 2819

```

ncgaccgccc tgccccagat caacatcact atcttgaaag gggagaaggg tgaccgcgga
60
gacgagggcc tccaaggga atattggcaa acaggctcag caggggccag gggccacact
120
ggaccctaaag ggcagaaggg ctccatgggg gcccttgggg agcgggtgcaa gagccactac
180
gcccctttt cggtgggccc ggaagcccat gcacagcaac cactactacc agacgtgatc
240
ttcgacacgg agttcgtgaa cctctacgac cacttcaaca tggtcaccgg caagtcttac
300
tgctacgtgc ccggcctcta cttcttcagc ctcaacgtgc acacctggaa ccagaaggag
360
acctacctgc acatcatgaa gaacgaggag gaggtggtga tcttgttcgc gcagggtggc
420

```

gaccgcagca tcattgcaaag ccagagcctg atgctggagc tgcgagagca ggaccagggtg
 480
 tgggttaagcc tctacaaggg cgaacgtgag aacgccatct tcagcgagga gctggacacc
 540
 tacatcacct tcagtggtgcta cctgggtcaag cagccacccg agccctagct ggccggccac
 600
 ctcccttctc ctcgccacct tccacccctg cgctgtgctg accccaccgc ctcttccccc
 660
 atccctggac tccgactccc tggtcttggc attcagtgag acgcccctgca cacacagaaa
 720
 gccaaagcga
 730

<210> 2820

<211> 195

<212> PRT

<213> Homo sapiens

<400> 2820

Xaa Thr Ala Val Pro Gln Ile Asn Ile Thr Ile Leu Lys Gly Glu Lys
 1 5 10 15
 Gly Asp Arg Gly Asp Arg Gly Leu Gln Gly Lys Tyr Gly Lys Thr Gly
 20 25 30
 Ser Ala Gly Ala Arg Gly His Thr Gly Pro Lys Gly Gln Lys Gly Ser
 35 40 45
 Met Gly Ala Pro Gly Glu Arg Cys Lys Ser His Tyr Ala Ala Phe Ser
 50 55 60
 Val Gly Arg Glu Ala His Ala Gln Gln Pro Leu Pro Asp Val Ile
 65 70 75 80
 Phe Asp Thr Glu Phe Val Asn Leu Tyr Asp His Phe Asn Met Phe Thr
 85 90 95
 Gly Lys Phe Tyr Cys Tyr Val Pro Gly Leu Tyr Phe Phe Ser Leu Asn
 100 105 110
 Val His Thr Trp Asn Gln Lys Glu Thr Tyr Leu His Ile Met Lys Asn
 115 120 125
 Glu Glu Glu Val Val Ile Leu Phe Ala Gln Val Gly Asp Arg Ser Ile
 130 135 140
 Met Gln Ser Gln Ser Leu Met Leu Glu Leu Arg Glu Gln Asp Gln Val
 145 150 155 160
 Trp Val Arg Leu Tyr Lys Gly Glu Arg Glu Asn Ala Ile Phe Ser Glu
 165 170 175
 Glu Leu Asp Thr Tyr Ile Thr Phe Ser Gly Tyr Leu Val Lys His Ala
 180 185 190
 Thr Glu Pro
 195

<210> 2821

<211> 1746

<212> DNA

<213> Homo sapiens

<400> 2821

nnagactgca gttctctgct tacctgtgca gtctaatctt gagctgcctc tttgtagtct
 60

taaaaggcag gagcttcgtg ttgtgggtct gctaaccgt acgtttccgt gggcaagtcg
120
tgtgtactcc tcgccatggc acaactccaa acacgtttct acactgataa caagaaatat
180
gcagtagatg atgttccttt ctcaatccct gccacctcag aagttgctga ccttagtaat
240
attatcaata aattgctgga gaccaaaaat gagctccaca aacatgtgga gtttgatttc
300
ctcatcaagg gccagtttct togaatgcc ttggacaac acatggaaat ggaagacatc
360
tcactcagaag aagttgtgga aatagaatac gtggagaagt atactgcacc ccagccagag
420
caatgcatgt tccatgatga ctggatcagt tcaattaaag gggcagagga atggatcttg
480
actggttctt atggtaagac ttctcggatc tggtccttgg aaggaaagtc aataatgaca
540
attgtgggac atacggatgt tgtaaaagat gtggcctggg tgaaaaaga tagtttgtcc
600
tgcttattat ttgagtgcct ctatggatca gactattctc ttatgggagt ggaatgtaga
660
gagaaacaaa gtgaaagccc tacactgctg nntagaggtc atgctggaag tgtagattct
720
atagctgttg atggctcagg aactaaattt tgcagtggct cctgggataa gatgctaaag
780
atctgtgtcta cagtccttac agatgaagaa gatgaaatgg aggagtcacc aaatcgacca
840
agaaaagaa agaacacaga acagtggga ctaacaagga ctcccatagt gacctctctc
900
ggccacatgg aggcagtttc ctccagttct tggtcagatg ctgaagaaat ctgcagtgc
960
tcttgggacc atacaattag agtgtgggat gttgagtctg gcagtcttaa gtcaactttg
1020
acaggaaata aagtgtttaa ttgtatttcc tattctccac tttgtaaacg tttagcatct
1080
ggaagcacag ataggcatat cagactgtgg gatcccgaa ctaagatgg ttctttgggtg
1140
tcgctgtccc taacgtcaca tactgggttg gtgacatcag taaaatggct tctaccatc
1200
gaacagcagc tgatttcagg atctttagat aacattgtta agctgtggga tacaagaagt
1260
tgtaaggctc ctctctatga tctggctgct catgaagaca aagtctctag tgtagactgg
1320
acagacacag ggcacttctc gagtggagga gcagacaata aattgtattc ctacagatat
1380
tcacctacca cttcccatgt tggggcatga aagtgaacaa taatttgact atagagatta
1440
tttctgtaaa tgaaattggt agagaacat gaaattacat agatgcagat gcagaaagca
1500
gccttttgaa gtttatataa tgttttcacc ctccataaca gctaactgat cactttttct
1560
tattttgtat ttataataag ataggttgtg ttataaaaat caaaactgtg gcatacatc
1620
tctatacaaa cttgaaatta aactgagttt tacatttctc tttaaaggta ttggttgaa
1680

ttcagatttg cttttttatt tttatttggt ttttttttga gatggaggtat tgctctggtg

1740

cctagg

1746

<210> 2822

<211> 424

<212> PRT

<213> Homo sapiens

<400> 2822

Met	Ala	Gln	Leu	Gln	Thr	Arg	Phe	Tyr	Thr	Asp	Asn	Lys	Lys	Tyr	Ala
1				5					10					15	
Val	Asp	Asp	Val	Pro	Phe	Ser	Ile	Pro	Ala	Thr	Ser	Glu	Val	Ala	Asp
			20					25					30		
Leu	Ser	Asn	Ile	Ile	Asn	Lys	Leu	Leu	Glu	Thr	Lys	Asn	Glu	Leu	His
		35					40					45			
Lys	His	Val	Glu	Phe	Asp	Phe	Leu	Ile	Lys	Gly	Gln	Phe	Leu	Arg	Met
	50					55				60					
Pro	Leu	Asp	Lys	His	Met	Glu	Met	Glu	Asp	Ile	Ser	Ser	Glu	Glu	Val
65					70				75					80	
Val	Glu	Ile	Glu	Tyr	Val	Glu	Lys	Tyr	Thr	Ala	Pro	Gln	Pro	Glu	Gln
				85					90					95	
Cys	Met	Phe	His	Asp	Asp	Trp	Ile	Ser	Ser	Ile	Lys	Gly	Ala	Glu	Glu
			100					105					110		
Trp	Ile	Leu	Thr	Gly	Ser	Tyr	Gly	Lys	Thr	Ser	Arg	Ile	Trp	Ser	Leu
	115						120					125			
Glu	Gly	Lys	Ser	Ile	Met	Thr	Ile	Val	Gly	His	Thr	Asp	Val	Val	Lys
	130				135						140				
Asp	Val	Ala	Trp	Val	Lys	Lys	Asp	Ser	Leu	Ser	Cys	Leu	Leu	Xaa	Glu
145					150					155				160	
Cys	Phe	Tyr	Gly	Ser	Asp	Tyr	Ser	Leu	Met	Gly	Val	Glu	Cys	Arg	Glu
			165						170					175	
Lys	Gln	Ser	Glu	Ser	Pro	Thr	Leu	Leu	Xaa	Arg	Gly	His	Ala	Gly	Ser
	180						185						190		
Val	Asp	Ser	Ile	Ala	Val	Asp	Gly	Ser	Gly	Thr	Lys	Phe	Cys	Ser	Gly
	195						200					205			
Ser	Trp	Asp	Lys	Met	Leu	Lys	Ile	Trp	Ser	Thr	Val	Pro	Thr	Asp	Glu
	210				215						220				
Glu	Asp	Glu	Met	Glu	Glu	Ser	Thr	Asn	Arg	Pro	Arg	Lys	Lys	Gln	Lys
225					230					235				240	
Thr	Glu	Gln	Leu	Gly	Leu	Thr	Arg	Thr	Pro	Ile	Val	Thr	Leu	Ser	Gly
			245						250					255	
His	Met	Glu	Ala	Val	Ser	Ser	Val	Leu	Trp	Ser	Asp	Ala	Glu	Glu	Ile
	260							265						270	
Cys	Ser	Ala	Ser	Trp	Asp	His	Thr	Ile	Arg	Val	Trp	Asp	Val	Glu	Ser
	275						280					285			
Gly	Ser	Leu	Lys	Ser	Thr	Leu	Thr	Gly	Asn	Lys	Val	Phe	Asn	Cys	Ile
	290					295					300				
Ser	Tyr	Ser	Pro	Leu	Cys	Lys	Arg	Leu	Ala	Ser	Gly	Ser	Thr	Asp	Arg
305					310					315				320	
His	Ile	Arg	Leu	Trp	Asp	Pro	Arg	Thr	Lys	Asp	Gly	Ser	Leu	Val	Ser
			325						330					335	
Leu	Ser	Leu	Thr	Ser	His	Thr	Gly	Trp	Val	Thr	Ser	Val	Lys	Trp	Ser

```

          340          345          350
Pro Thr His Glu Gln Gln Leu Ile Ser Gly Ser Leu Asp Asn Ile Val
      355          360          365
Lys Leu Trp Asp Thr Arg Ser Cys Lys Ala Pro Leu Tyr Asp Leu Ala
      370          375          380
Ala His Glu Asp Lys Val Leu Ser Val Asp Trp Thr Asp Thr Gly Leu
385          390          395          400
Leu Leu Ser Gly Gly Ala Asp Asn Lys Leu Tyr Ser Tyr Arg Tyr Ser
      405          410          415
Pro Thr Thr Ser His Val Gly Ala
      420

```

<210> 2823

<211> 461

<212> DNA

<213> Homo sapiens

<400> 2823

```

cgccgcgagc cttccccctt actcctggct gacaccatga actgctccca cgttcacccc
60
gttgtgtctg tcagtggggg aagggggcgg aacctctatg ctgggggtcg ggtggacgtg
120
ggtgggtggt gaccctctgt gggaggcaga cacagtcaaa gccgtcgccc ttgggaaggg
180
cagcccgaga agctggccct gtgtgggcct gggcctgtag ggtttccag tggcttttgcg
240
gagccagaga gctggatggc acctgggtcca gccaaagcaaa gccccgaggg caggggctgg
300
atggggacac gcacatgtcc cttggccacg acaaaatggc agtgatgctg cttgccttcc
360
tgcagcatct gtgaggatca aatgcgtgca cctacgcaaa gcatccgcac atagcaagtg
420
ctcacctagc acaggagccc cgtgtctctc ccaagtctca g
461

```

<210> 2824

<211> 81

<212> PRT

<213> Homo sapiens

<400> 2824

```

Met Cys Val Ser Pro Ser Ser Pro Cys Pro Arg Gly Phe Ala Trp Leu
1          5          10          15
Asp Gln Val Pro Ser Ser Ser Leu Ala Pro Gln Ser His Trp Glu Thr
      20          25          30
Leu Gln Ala Gln Ala His Thr Gly Pro Ala Ser Pro Ala Ala Leu Pro
      35          40          45
Lys Gly Asp Ala Cys Asp Cys Val Cys Leu Pro Thr Gly Val Thr Thr
      50          55          60
His Pro Arg Pro Pro Glu Pro Gln His Glu Gly Ser Ala Pro Phe Pro
65          70          75          80
His

```

<210> 2825
<211> 1520
<212> DNA
<213> Homo sapiens

<400> 2825
tgtctaaccac ttgcttgcta caaaggccat ttggatatgg ttcgctttct acttgaagct
60
gggtgcagatc aagagcacaa aacagatgag atgcacactg ccttaatgga ggcctgcattg
120
gatggacatg tagagggtggc acgtttgctt ttggatagtg gtgctcaagt gaacatgcct
180
gcagattcat ttgaatctcc attgacgcta gctgcctgtg gaggacatgt tgaattggca
240
gctctactta ttgaaagggg agcaaatctt gaagaagtta atgatgaagg atacactccc
300
ttgatggaag cagctcgaga aggacatgaa gaaatgggtg cattacttct tagcacaagg
360
agcnaaatat caatgcacag acagaagaaa ctcaagaaac tgctcttgac tctggcttgc
420
tgtggaggct tcttggaagt ggacagacttt ctaattaaagg caggagccga tatagaacta
480
gggtgttcta cccctttaat ggaagctgct caagagggtc atttggaggt agttaataac
540
ttattagctg caggagctaa cgttcatgca acaacagcaa caggggatac agcactaaca
600
tatgcctgtg aaatggtca tactgatgta gcagatgtct tacttcaggc aggcgcagat
660
ttagacaagc aggaggacat gaagactatt ttggagggca tagatccggc caagcatctg
720
gaacatgaat ctgaagggtg aagaactcct ttaatgaaag ctgcaagagc tggctcatgt
780
tgtactgttc agttctttaa tagtaaaagg gcgaatgtga atagaaccac agctaataat
840
gaccatactg tactgtccct ggcttggtgca gggggtcac tggcagtggg ggaactactt
900
ttgggtcatg ggcagatcc tactcacgt ttgaaagat gctcaactat gtttagataga
960
gcagcaaaag gtggccatcc aagtgtgtt tgctatctct tggattatcc taataacttg
1020
ctttcagccc ctccaccaga tgtcactcag ttaactcccc catcccaaga ttttaaatagg
1080
gtctctctgt taccagttca agcactgccc atgggtgttc cacctcagga gcctgacaaa
1140
ccacctgcc aatgtgccac cactcttccc atcaggaata aagctgcttc taaacaaaag
1200
tccagcagcc atttgccagc aaacagccag gatgtacagg gttacatcac caatcagct
1260
ccagagagca ttgtagaaga ggtcaggga aagttaacag aactggaaca gaggataaaa
1320
gaagccatag aaaagaatgc acagctgcag tccttggaa c tggctcatgc tgaccaactt
1380
accaaggaga agatcgagga gctcaacaaa acaaggaggg aacaaattca gaagaacaaa
1440

aagatttttg aggaactaca gaaagtagaa cgagagttac aactgaaaac tcagcagcag
 1500
 ctaaaaaaac agtatctaga
 1520

<210> 2826

<211> 506

<212> PRT

<213> Homo sapiens

<400> 2826

Cys	Leu	Thr	Leu	Ala	Cys	Tyr	Lys	Gly	His	Leu	Asp	Met	Val	Arg	Phe
1				5					10					15	
Leu	Leu	Glu	Ala	Gly	Ala	Asp	Gln	Glu	His	Lys	Thr	Asp	Glu	Met	His
			20					25					30		
Thr	Ala	Leu	Met	Glu	Ala	Cys	Met	Asp	Gly	His	Val	Glu	Val	Ala	Arg
			35				40					45			
Leu	Leu	Leu	Asp	Ser	Gly	Ala	Gln	Val	Asn	Met	Pro	Ala	Asp	Ser	Phe
			50				55				60				
Glu	Ser	Pro	Leu	Thr	Leu	Ala	Ala	Cys	Gly	Gly	His	Val	Glu	Leu	Ala
65					70				75					80	
Ala	Leu	Leu	Ile	Glu	Arg	Gly	Ala	Asn	Leu	Glu	Glu	Val	Asn	Asp	Glu
				85				90						95	
Gly	Tyr	Thr	Pro	Leu	Met	Glu	Ala	Ala	Arg	Glu	Gly	His	Glu	Glu	Met
			100					105					110		
Val	Ala	Leu	Leu	Leu	Ser	Thr	Arg	Ser	Xaa	Ile	Ser	Met	His	Arg	Gln
			115				120					125			
Lys	Lys	Leu	Lys	Lys	Leu	Leu	Thr	Leu	Ala	Cys	Cys	Gly	Gly	Phe	
			130				135				140				
Leu	Glu	Val	Ala	Asp	Phe	Leu	Ile	Lys	Ala	Gly	Ala	Asp	Ile	Glu	Leu
145					150					155				160	
Gly	Cys	Ser	Thr	Pro	Leu	Met	Glu	Ala	Ala	Gln	Glu	Gly	His	Leu	Glu
					165					170				175	
Leu	Val	Lys	Tyr	Leu	Leu	Ala	Ala	Gly	Ala	Asn	Val	His	Ala	Thr	Thr
			180					185						190	
Ala	Thr	Gly	Asp	Thr	Ala	Leu	Thr	Tyr	Ala	Cys	Glu	Asn	Gly	His	Thr
			195				200					205			
Asp	Val	Ala	Asp	Val	Leu	Leu	Gln	Ala	Gly	Ala	Asp	Leu	Asp	Lys	Gln
			210				215				220				
Glu	Asp	Met	Lys	Thr	Ile	Leu	Glu	Gly	Ile	Asp	Pro	Ala	Lys	His	Leu
225					230					235				240	
Glu	His	Glu	Ser	Glu	Gly	Gly	Arg	Thr	Pro	Leu	Met	Lys	Ala	Ala	Arg
				245					250					255	
Ala	Gly	His	Val	Cys	Thr	Val	Gln	Phe	Leu	Ile	Ser	Lys	Gly	Ala	Asn
			260					265					270		
Val	Asn	Arg	Thr	Thr	Ala	Asn	Asn	Asp	His	Thr	Val	Leu	Ser	Leu	Ala
			275					280					285		
Cys	Ala	Gly	Gly	His	Leu	Ala	Val	Val	Glu	Leu	Leu	Leu	Ala	His	Gly
			290				295				300				
Ala	Asp	Pro	Thr	His	Arg	Leu	Lys	Asp	Gly	Ser	Thr	Met	Leu	Ile	Glu
305					310					315				320	
Ala	Ala	Lys	Gly	Gly	His	Thr	Ser	Val	Val	Cys	Tyr	Leu	Leu	Asp	Tyr
				325					330					335	
Pro	Asn	Asn	Leu	Leu	Ser	Ala	Pro	Pro	Pro	Asp	Val	Thr	Gln	Leu	Thr

```

          340          345          350
Pro Pro Ser His Asp Leu Asn Arg Ala Pro Arg Val Pro Val Gln Ala
          355          360          365
Leu Pro Met Val Val Pro Pro Gln Glu Pro Asp Lys Pro Pro Ala Asn
          370          375          380
Val Ala Thr Thr Leu Pro Ile Arg Asn Lys Ala Ala Ser Lys Gln Lys
          385          390          395          400
Ser Ser Ser His Leu Pro Ala Asn Ser Gln Asp Val Gln Gly Tyr Ile
          405          410          415
Thr Asn Gln Ser Pro Glu Ser Ile Val Glu Glu Ala Gln Gly Lys Leu
          420          425          430
Thr Glu Leu Glu Gln Arg Ile Lys Glu Ala Ile Glu Lys Asn Ala Gln
          435          440          445
Leu Gln Ser Leu Glu Leu Ala His Ala Asp Gln Leu Thr Lys Glu Lys
          450          455          460
Ile Glu Glu Leu Asn Lys Thr Arg Glu Glu Gln Ile Gln Lys Lys Gln
          465          470          475          480
Lys Ile Leu Glu Glu Leu Gln Lys Val Glu Arg Glu Leu Gln Leu Lys
          485          490          495
Thr Gln Gln Gln Leu Lys Lys Gln Tyr Leu
          500          505

```

<210> 2827

<211> 481

<212> DNA

<213> Homo sapiens

<400> 2827

```

cgggaggcag ctgctgccgc aggagatgct tcagaggatt cggacgcagg gtccagggcg
60
ctgcctttcc tgggcggcaa ccggctgagc ttggacctgt accccggggg ctgccagcag
120
ctgctgcacc tgtgtgtcca gcagcctctt cagctgctgc aggtggaatt cttgcgtctg
180
aacactcacg aagaccctca actgctggag gccaccctgg ccagctgcc tcaaaacctg
240
tcctgcctcc gctccctggt cctcaaaaga gggcaacgcc gggacacact gggtgcctgt
300
ctccgggggt ccttgaccaa cctgcccgtc ggtctgagtg gcttgcccca tctggcccac
360
ctggacctga gcttcaacag cctggagaca ctgccggcct gtgtctgca gatgcagagt
420
ctgggtgcgc tcttgcgtgc tcacaactgc ctctctgagc tgcctgaggc tctggggggc
480
c
481

```

<210> 2828

<211> 160

<212> PRT

<213> Homo sapiens

<400> 2828

```

Arg Glu Ala Ala Ala Ala Ala Gly Asp Ala Ser Glu Asp Ser Asp Ala

```

```

      1           5           10           15
Gly Ser Arg Ala Leu Pro Phe Leu Gly Gly Asn Arg Leu Ser Leu Asp
      20           25           30
Leu Tyr Pro Gly Gly Cys Gln Gln Leu Leu His Leu Cys Val Gln Gln
      35           40           45
Pro Leu Gln Leu Leu Gln Val Glu Phe Leu Arg Leu Asn Thr His Glu
      50           55           60
Asp Pro Gln Leu Leu Glu Ala Thr Leu Ala Gln Leu Pro Gln Asn Leu
      65           70           75           80
Ser Cys Leu Arg Ser Leu Val Leu Lys Arg Gly Gln Arg Arg Asp Thr
      85           90           95
Leu Gly Ala Cys Leu Arg Gly Ala Leu Thr Asn Leu Pro Ala Gly Leu
      100          105          110
Ser Gly Leu Ala His Leu Ala His Leu Asp Leu Ser Phe Asn Ser Leu
      115          120          125
Glu Thr Leu Pro Ala Cys Val Leu Gln Met Arg Gly Leu Gly Ala Leu
      130          135          140
Leu Leu Ser His Asn Cys Leu Ser Glu Leu Pro Glu Ala Leu Gly Ala
      145          150          155          160

```

<210> 2829

<211> 3648

<212> DNA

<213> Homo sapiens

<400> 2829

```

nnntttttttt tttttttttt aatgtagcaa ttatatattt cgtcaattag aggtttgctc
60
tctaaaagca gatacttttc attttaaagt acataggata attctcaaga agtatttgct
120
gcagtgactgg tgggttatggc taaaaataga gcaatagtga aaataaaaaat aagtcgctac
180
tctaaaacca ggaagatgca cagtgaaaac tttgaaaaat tattttgcca tgaaaataatt
240
ttctaagcgt tttccttggg atattgattt tattgtatcg attgtattat attgtatggg
300
attagattag attagattgg attggattta tagcacccag gctacctcct tgagaaacag
360
caacttacct agcaaatcca cctttttcgc ctttaagaat acgttttcat tgaattccta
420
ttgttccaaa gatactaagt atgcccggtg gacctaaag acaaacccaa attagggaaa
480
gtaagctcag atggaaagag acctttggga tttcatctta ttatgtttta tatatgtttt
540
aatacctttt cacagattta aatccccagg gtgaatactc ctttctttgt tagtacctgg
600
cgtgtgttca gtagtcaaag taattaaaaat tagcacctat ataatgagct tgtcatattt
660
aatgttcttt accaaccaga atcctaatag agtctaaaaa gtttaggctg ggcacgttgg
720
ctcacgctg caatcccagc ccaagaagtt cttttggcca agacycacac acacacacca
780ttctatttcc ttccagtgtg acgacaacca caagctgtca gcatttca 840
atttgcgtgc ccttcagcgg gatcgggatg cagctacgca gcgggccccct ggcgagccgc
900

```

ggtgtcaggg cctttttctc ctcttccac cgtgggaagc gaattcagtg gcgtcaaggg
960
ccaagagcca gacctgagtt tgtctctcac ccccgatgc tcgtctccct tttctcactg
1020
ccttccgccc cctctgatct cgacttctcg caacctatcc aggtcctctc tgggcctctg
1080
cctgagtgca gcccgaatc agacgggctt gactcgctga aagaattccc ctctgagagg
1140
aggcagattc ccctctacat agacgacacc ctgacgatgg tgatggaatt tcctgataat
1200
gtgttaaatc tcgtaggaca tcagaataat ggtgcacagc taaagcagtt cattcagcga
1260
catggatgac ttaagcaaca ggatctaagt attgccatgg tggtgacatc acgcgaagtc
1320
ctgagtgcac tttctcagct tgtcccatgt gttggttgtc gtcgcagtggt ggagcgtctc
1380
ttttcccgagc ttgtagagtc tggaaatcct gctcttgaac ccctaacagt agggcccaag
1440
ggagtcctgt ctgtaactag aagctgcatg actgatgcaa agaagcttta tacattattt
1500
tatgtacatg ggtccaaact aaatgacatg atagatgcta ttccaaaaag taagaagaat
1560
aagagatgac agttgcactc cttagatagc cacaagcaa aacctttggg aggttgttgg
1620
atggatgtat gggaactaat gtcgcaggaa tgcagggatg aagtagtttt aattgactcg
1680
agttgtcttt tagaaacact agaacaatat ctgcgaaaac acaggttttg cactgattgc
1740
aaaaataaag tcctccgagc atacaatatc cttattgggt aacttgactg cagcaaagaa
1800
aagggtcact gtgctgcact ttatgaaggc ttgcggtgct gtccacatga acgacacata
1860
catgttttgc tgaaaacaga cttcattgca catcttttgg gtcgtgctga gccagagttc
1920
gcaggagggt atgacgcaag agaaaggcat gcaagacaa tagatatagc tcaagaagaa
1980
gttctgcacct gcttgggaat tcactcttat gaaagactgc atcgaatctg gcgaagcta
2040
cgggcagaag agcagacatg gcagatgctt ttctatcttg gtgttgtatgc ttacgcaag
2100
agttttgaga tgaccttgga aaaagtacag ggtattagca gattggaaca actttgtgag
2160
gaatttttcag aagagggaag agtaagagaa ctcaagcaag aaaagaaacg ccaaaaacyg
2220
aagaatagac gaaaaataa gtgtgtgtgt gatattccta ctcccttaca aacagcagat
2280
gaaaaggaag taagccaaga gaaggaaaca gacttcatag aaaatagcag ctgcaaagcc
2340
tgtggcgaca ctgaagatgg taatacttgt gtagaagtaa ttgttaccac tgaataatata
2400
tcattgtacct gtccctagcag tggcaatctt ttgggggtccc ctaaaataaa gaaaggctta
2460
tctccacact gtaattgtag tgatttgga tattcatcta gcatggaagg gagtgaacaa
2520

ggttctcggg aggggttcgga tgttgccctgc actgaaggca ttgtaatca tgatgaacac
 2580
 ggtgatgact cttgtgttca tcactgtgaa gacaaaggagg atgatgggtga tagttgtgtt
 2640
 gaatgttggg caaatctctga agagaacgac acaaaaggaa aaaaataaaaa gaagaagaag
 2700
 aaaagcaaga tactgaaatg tgatgaacat atccagaagc ttggaagctg tattacagat
 2760
 ccaggtaatc gagagacctc aggaataacc atgcacacag tgtttcaccc tgacaagacc
 2820
 aaagatacac atcctgaaag ctgttcgagc tctgaaaagg gtgggcagcc attgccttgg
 2880
 tttagcagata ggaataaatgt accacagttt gcagaacctc cagaaacggt gtttggtccc
 2940
 gattccggaa aagggtgcca gagcttagtt gaactccttg atgagtgctga atgtacttca
 3000
 gatgaggaaa tctttatctc acaagatgaa atacagtcac ttatggctaa taaccagtct
 3060
 tcttacagca atagagaaca ataccgacag catctgaagg agaaatttaa taataactgc
 3120
 cgggttaaatg atcacaaagag gcccatctgt agtgggtggt tgacaacggc tggagcaaat
 3180
 taataaataa aaatagctct gtcttccaat gaaacactca cgatgactac tgcgccttct
 3240
 ctttcgaaaa actcttaatt tagtgactta tggcaaaatt ttatcttaaa tcaatgtgat
 3300
 tctttcttgt ttggggagac ggtggaggta tctctattag ttctttcttc aggctgtgtg
 3360
 ctttagttgc gtggctgcgc aggcctgcca tatgatttaa gccatctctt ttcattaaat
 3420
 gtttctcttc ctgtgagact tactaaagca acttagtggc aaaaagtaat gttgtactta
 3480
 taattctgta cagaatgac aatgagctga atatatggtt ttacaaagta gacatccact
 3540
 tgcaaaatgt ttggatgtaa tgttaaagcg caatgtgcaa aattttaaataa aaagaatatt
 3600
 tattaatacg cacaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa
 3648

<210> 2830

<211> 668

<212> PRT

<213> Homo sapiens

<400> 2830

Met Val Met Glu Phe Pro Asp Asn Val Leu Asn Leu Asp Gly His Gln
 1 5 10 15
 Asn Asn Gly Ala Gln Leu Lys Gln Phe Ile Gln Arg His Gly Met Leu
 20 25 30
 Lys Gln Gln Asp Leu Ser Ile Ala Met Val Val Thr Ser Arg Glu Val
 35 40 45
 Leu Ser Ala Leu Ser Gln Leu Val Pro Cys Val Gly Cys Arg Arg Ser
 50 55 60
 Val Glu Arg Leu Phe Ser Gln Leu Val Glu Ser Gly Asn Pro Ala Leu

```

65          70          75          80
Glu Pro Leu Thr Val Gly Pro Lys Gly Val Leu Ser Val Thr Arg Ser
85
Cys Met Thr Asp Ala Lys Lys Leu Tyr Thr Leu Phe Tyr Val His Gly
100
Ser Lys Leu Asn Asp Met Ile Asp Ala Ile Pro Lys Ser Lys Lys Asn
115
Lys Arg Cys Gln Leu His Ser Leu Asp Thr His Lys Pro Lys Pro Leu
130
Gly Gly Cys Trp Met Asp Val Trp Glu Leu Met Ser Gln Glu Cys Arg
145
Asp Glu Val Val Leu Ile Asp Ser Ser Cys Leu Leu Glu Thr Leu Glu
165
Thr Tyr Leu Arg Lys His Arg Phe Cys Thr Asp Cys Lys Asn Lys Val
180
Leu Arg Ala Tyr Asn Ile Leu Ile Gly Glu Leu Asp Cys Ser Lys Glu
195
Lys Gly Tyr Cys Ala Ala Leu Tyr Glu Gly Leu Arg Cys Cys Pro His
210
Glu Arg His Ile His Val Cys Cys Glu Thr Asp Phe Ile Ala His Leu
225
Leu Gly Arg Ala Glu Pro Glu Phe Ala Gly Gly Tyr Glu Arg Arg Glu
245
Arg His Ala Lys Thr Ile Asp Ile Ala Gln Glu Glu Val Leu Thr Cys
260
Leu Gly Ile His Leu Tyr Glu Arg Leu His Arg Ile Trp Gln Lys Leu
275
Arg Ala Glu Glu Gln Thr Trp Gln Met Leu Phe Tyr Leu Gly Val Asp
290
Ala Leu Arg Lys Ser Phe Glu Met Thr Val Glu Lys Val Gln Gly Ile
305
Ser Arg Leu Glu Gln Leu Cys Glu Glu Phe Ser Glu Glu Glu Arg Val
325
Arg Glu Leu Lys Gln Glu Lys Lys Arg Gln Lys Arg Lys Asn Arg Arg
340
Lys Asn Lys Cys Val Cys Asp Ile Pro Thr Pro Leu Gln Thr Ala Asp
355
Glu Lys Glu Val Ser Gln Glu Lys Glu Thr Asp Phe Ile Glu Asn Ser
370
Ser Cys Lys Ala Cys Gly Ser Thr Glu Asp Gly Asn Thr Cys Val Glu
385
Val Ile Val Thr Asn Glu Asn Thr Ser Cys Thr Cys Pro Ser Ser Gly
405
Asn Leu Leu Gly Ser Pro Lys Ile Lys Lys Gly Leu Ser Pro His Cys
420
Asn Gly Ser Asp Cys Gly Tyr Ser Ser Ser Met Glu Gly Ser Glu Thr
435
Gly Ser Arg Glu Gly Ser Asp Val Ala Cys Thr Glu Gly Ile Cys Asn
450
His Asp Glu His Gly Asp Asp Ser Cys Val His His Cys Glu Asp Lys
465
Glu Asp Asp Gly Asp Ser Cys Val Glu Cys Trp Ala Asn Ser Glu Glu
485
Asn Asp Thr Lys Gly Lys Asn Lys Lys Lys Lys Lys Lys Ser Lys Ile
495

```

```

                    500                    505                    510
Leu Lys Cys Asp Glu His Ile Gln Lys Leu Gly Ser Cys Ile Thr Asp
    515                    520                    525
Pro Gly Asn Arg Glu Thr Ser Gly Asn Thr Met His Thr Val Phe His
    530                    535                    540
Arg Asp Lys Thr Lys Asp Thr His Pro Glu Ser Cys Cys Ser Ser Glu
545                    550                    555                    560
Lys Gly Gly Gln Pro Leu Pro Trp Phe Glu His Arg Lys Asn Val Pro
    565                    570                    575
Gln Phe Ala Glu Pro Thr Glu Thr Leu Phe Gly Pro Asp Ser Gly Lys
    580                    585                    590
Gly Ala Lys Ser Leu Val Glu Leu Leu Asp Glu Ser Glu Cys Thr Ser
    595                    600                    605
Asp Glu Glu Ile Phe Ile Ser Gln Asp Glu Ile Gln Ser Phe Met Ala
    610                    615                    620
Asn Asn Gln Ser Phe Tyr Ser Asn Arg Glu Gln Tyr Arg Gln His Leu
625                    630                    635                    640
Lys Glu Lys Phe Asn Lys Tyr Cys Arg Leu Asn Asp His Lys Arg Pro
    645                    650                    655
Ile Cys Ser Gly Trp Leu Thr Thr Ala Gly Ala Asn
    660                    665

```

<210> 2831

<211> 3986

<212> DNA

<213> Homo sapiens

<400> 2831

```

nnctcttgcc tcaacctccc aaattgctag ttggcccggt gccttcagtg gcctttgtgt
60
ctgggtgaga ggaacctctg atggccactc tgccttgagt gtgtgggtcc ccagaagtgc
120
tggttagagg ggcacggagg gccagaaagt cccctttgga gcgctggact ctctcgctga
180
ctctaccccc accccggcct ggggtttcag agaaggggtc caggcaggag tgtcatcttt
240
tctcaatggg gatgtggtt cagtctctgt ccaggaggca cgcggaacct cagtggccgg
300
ctccggaggc ttggtgactc cagtggccca gccttgaaaa gatcttttga ggctcaggag
360
gtcgagacac ccaactccac cccacccogg aggggtccaga ctccccactc ccgagccact
420
gtggccagct ccaccagaa attccaggac ctgggcgtga agaactcaga accctcgccc
480
cgccatgttg actcctaag ccaacgctcc cccaaggcgt cctctcggag ggtggagctc
540
tcgggccccca agggggccga gccggtgtcc cgggcactgc agctgtccat tgacatctcg
600
tccaagcagg tggagaaacg cggggccatc ggcccgctcc ggttcgggct caagaggggc
660
gaggtgttgg gccacaagac gccagaaccc gccctcggga ggacggagat caccatcgtc
720
aaacccccagg agtcagccca ccggagggat gagccccctg cctccaaggt ccccgagggt
780

```

cccactgccc ctgccaccga cgcagccccc aagagggtgg agatccagat gcccaagcct
840
gctgaggcgc ccaccgcccc cagcccagcc cagaccttgg agaattcaga gcctgcccc
900
gtgtctcagc tgcagagcag gctggagccc aagccccagc cccctgtggc tgaggctaca
960
cccggagacc aggaggccac tgaggcggct ccagctgcg ttggcgacat ggccgacacc
1020
cccagagatg ccgggctcaa gcaggcgccct gcatacagga acgagaaggc cccgggtggac
1080
ttcggctacg tggggattga ctccatccgt gagcagatgc gccggaaggc catgaagcag
1140
ggcttcgagt tcaacatcat ggtggtcggg cagagcggct tgggtaaatc cacttaaatc
1200
aacaccctct tcaaatccaa aatcagccgg aagtccgtgc agcccacctc agaggagcgc
1260
atccccaaga ccatacagat caagtccatc acgcacgata ttgaggagaa aggcgtccgg
1320
atgaagctga cagtgatgta cacaccaggg ttcggggacc acatcaacaa cgagaactgc
1380
tggcagccca tcatgaagt catcaatgac cagtacgaga aatacctgca ggaggaggtc
1440
aacatcaacc gcaagaagcg catcccgacc acccgcgctc actgctgcct ctacttcac
1500
ccgcaccacg gccactccct cagggccctg gacatcgagt ttatgaaacg cctgagcaag
1560
gtggtcaaca tegtccctgt catgcacaag gcggacacac tcaccctgga ggagagggtc
1620
cacttcaaac agcggatcac cgcagacctg ctgtccaaag gcategaagt gtacccccag
1680
aaggaaattt atgaggactc ggaggaccgg ctggtgaacg agaagtccg ggagatgatc
1740
ccatttgctg tgggtggcag tgaccacgag taccaggcca acggcaagag gatccttggg
1800
aggaagacca agtggggtac catcgaagt gaaaacacca cactctgtga gtttgctac
1860
ctgcgggacc ttctcatcag gacgcacatg cagaacatca aggacatcac cagcagcatc
1920
cacttcgagg cgtaccgtgt gaagcgccctc aacgagggga gcagcgccat ggccaacggc
1980
gtggaggaga aggagccaga agccccggag atgtagacgc caccctgccc acccccggga
2040
tcctgcccc aagtcatttc cgtccccccc ccaggccctc ccaccacccc attttatttt
2100
atatgatatt ttccatttgt catcgttccc cacccttccg acatgctgac aggaacaacg
2160
ggaagggggc tcctcccgag tgagtcagt atgaggccgc gccctcccc aggttgttggg
2220
gaggctgcac tggagccaca ggaggggggt agagcaccga ctgaattgac atgacctct
2280
gtcccacagg ctggctcccc gagggctcag aagagcagct tcgggtgtgca gatcatccgt
2340
ccgtgtgggg ttctcagtgc cggaggcctt ggggtggggg ccaggcctcg cacttcgaga
2400

ggagcccagt gggctgcacg cccccctcca tccccatcgg ccttgctccc tggagtgtgt
2460
cagagcccag gggagaatgc agcccaccag gacacactgg acccctgccc gcgccatgg
2520
tgtggccatc actcagcccc taccctgccc ctgctcctaa gggtagaaaa ctccagggtc
2580
ccctgccacc gaactgccag ccaactccaag cccctggcca gtgcccctc ctggagcaga
2640
aagtgccttt atctcagcca tccgcagact gctcgccag atgcggggac aggctggagt
2700
gaggaggcgc tcttcacttc cctgccatcc cctctcacg ccacccccgc cccaccggg
2760
ctgcaggctg tctgatgctg ctgggatctg attgaggata aaaaggaagg agagatgacc
2820
cctacccccct catcccccag ttttgaagg gtctaagcaa gtgagtctgg tggaggagct
2880
gaggggaggga gccatggaag gtgccagaag gaagggtggc gggggcacgt tggggccgtg
2940
gcttgggctg gtcagagtgg cgtgagctgc ccggcgctg cctgcccga gtgaccaggg
3000
aagtgtgtgt gtgtccatgt gtatgcgtgt ccgtctgtct gtctagtgtc tgggtttggc
3060
ccaagactgg gctgtagtta cattaatgcc cagccagcca cccctgccac tcaccccccc
3120
tggcccaggc cttgctgact ctctgagctg gggagggtgg aggccaggcg agcctgactc
3180
tgttgatcta cccgtgctg ggcctctccc ctcagagccc atggtaacga acccctagaa
3240
aggagagaac gggcgtcagg ggtgcacagt ccacagctga agagcaaggc ttcgtggcag
3300
cacggcccgc cccctcacc tctgtcccca cgaggggacc catgggggct gtctttgcag
3360
ggcacagatg accaaagtcc cttcctgctt cctgttacct gtcttgctcc tggggagaaa
3420
gaggggcctg atgagactcc actcaggctg acacatcacc aggtgcatct gcaggcaccg
3480
ggctggctgc ttgcagccag gagaaggctc gcgagaagga gtgtatgagt gtgagtgtgt
3540
gtgcattggaa gttggggcac tgggcgtctg actccctccc caccacaagag aggaaggacc
3600
cctcaccacc cccactggcg agacagtta ctttgcgcag ttgccatgtt tttgccaaaa
3660
ccaagatttt gaaggaaatg agtggccagc gccaggcccc aggccatgtg gcctgcccag
3720
ctcaatgtc acttggtggc ggggtggggg gggggggggc agcagcatcc cagccttgag
3780
atgcttacct ttccttctct gtaaccagac tttgaaaaat tgttcgtttc atcaggctct
3840
gttctcaatg ggccttttgc tacgtgcctc ccgagaaatt tgtctttttg tataaatgac
3900
aaagtgttga aaatgtattt cctgaaataa atgtttcaaa tgcagaaacc caaaaaaaaa
3960
aaaaaaaaaa aaaaaaaaaa aaaaaa
3986

<210> 2832

<211> 611

<212> PRT

<213> Homo sapiens

<400> 2832

```

Leu Leu Pro His Pro Gly Leu Gly Phe Gln Arg Arg Gly Pro Gly Arg
 1          5          10          15
Ser Val Ile Phe Ser Gln Trp Gly Cys Gly Phe Ser Leu Cys Pro Gly
 20          25          30
Gly Thr Arg Thr Ser Ser Gly Arg Leu Arg Arg Leu Gly Asp Ser Ser
 35          40          45
Gly Pro Ala Leu Lys Arg Ser Phe Glu Val Glu Glu Val Glu Thr Pro
 50          55          60
Asn Ser Thr Pro Pro Arg Arg Val Gln Thr Pro Leu Leu Arg Ala Thr
 65          70          75          80
Val Ala Ser Ser Thr Gln Lys Phe Gln Asp Leu Gly Val Lys Asn Ser
 85          90          95
Glu Pro Ser Ala Arg His Val Asp Ser Leu Ser Gln Arg Ser Pro Lys
100          105          110
Ala Ser Leu Arg Arg Val Glu Leu Ser Gly Pro Lys Ala Ala Glu Pro
115          120          125
Val Ser Arg Arg Thr Glu Leu Ser Ile Asp Ile Ser Ser Lys Gln Val
130          135          140
Glu Asn Ala Gly Ala Ile Gly Pro Ser Arg Phe Gly Leu Lys Arg Ala
145          150          155          160
Glu Val Leu Gly His Lys Thr Pro Glu Pro Ala Pro Arg Arg Thr Glu
165          170          175
Ile Thr Ile Val Lys Pro Gln Glu Ser Ala His Arg Arg Met Glu Pro
180          185          190
Pro Ala Ser Lys Val Pro Glu Val Pro Thr Ala Pro Ala Thr Asp Ala
195          200          205
Ala Pro Lys Arg Val Glu Ile Gln Met Pro Lys Pro Ala Glu Ala Pro
210          215          220
Thr Ala Pro Ser Pro Ala Gln Thr Leu Glu Asn Ser Glu Pro Ala Pro
225          230          235          240
Val Ser Gln Leu Gln Ser Arg Leu Glu Pro Lys Pro Gln Pro Pro Val
245          250          255
Ala Glu Ala Thr Pro Arg Ser Gln Glu Ala Thr Glu Ala Ala Pro Ser
260          265          270
Cys Val Gly Asp Met Ala Asp Thr Pro Arg Asp Ala Gly Leu Lys Gln
275          280          285
Ala Pro Ala Ser Arg Asn Glu Lys Ala Pro Val Asp Phe Gly Tyr Val
290          295          300
Gly Ile Asp Ser Ile Leu Glu Gln Met Arg Arg Lys Ala Met Lys Gln
305          310          315          320
Gly Phe Glu Phe Asn Ile Met Val Val Gly Gln Ser Gly Leu Gly Lys
325          330          335
Ser Thr Leu Ile Asn Thr Leu Phe Lys Ser Lys Ile Ser Arg Lys Ser
340          345          350
Val Gln Pro Thr Ser Glu Glu Arg Ile Pro Lys Thr Ile Glu Ile Lys
355          360          365
Ser Ile Thr His Asp Ile Glu Glu Lys Gly Val Arg Met Lys Leu Thr

```

```

      370              375              380
Val Ile Asp Thr Pro Gly Phe Gly Asp His Ile Asn Asn Glu Asn Cys
385              390              395              400
Trp Gln Pro Ile Met Lys Phe Ile Asn Asp Gln Tyr Glu Lys Tyr Leu
      405              410              415
Gln Glu Glu Val Asn Ile Asn Arg Lys Lys Arg Ile Pro Asp Thr Arg
      420              425              430
Val His Cys Cys Leu Tyr Phe Ile Pro Ala Thr Gly His Ser Leu Arg
      435              440              445
Pro Leu Asp Ile Glu Phe Met Lys Arg Leu Ser Lys Val Val Asn Ile
      450              455              460
Val Pro Val Ile Ala Lys Ala Asp Thr Leu Thr Leu Glu Glu Arg Val
      465              470              475              480
His Phe Lys Gln Arg Ile Thr Ala Asp Leu Ser Asn Gly Ile Asp
      485              490              495
Val Tyr Pro Gln Lys Glu Phe Asp Glu Asp Ser Glu Asp Arg Leu Val
      500              505              510
Asn Glu Lys Phe Arg Glu Met Ile Pro Phe Ala Val Val Glu Ser Asp
      515              520              525
His Glu Tyr Gln Val Asn Gly Lys Arg Ile Leu Gly Arg Lys Thr Lys
      530              535              540
Trp Gly Thr Ile Glu Val Glu Asn Thr Thr His Cys Glu Phe Ala Tyr
      545              550              555              560
Leu Arg Asp Leu Leu Ile Arg Thr His Met Gln Asn Ile Lys Asp Ile
      565              570              575
Thr Ser Ser Ile His Phe Glu Ala Tyr Arg Val Lys Arg Leu Asn Glu
      580              585              590
Gly Ser Ser Ala Met Ala Asn Gly Val Glu Glu Lys Glu Pro Glu Ala
      595              600              605
Pro Glu Met
      610

```

<210> 2833

<211> 420

<212> DNA

<213> Homo sapiens

<400> 2833

```

nnccgcagcc atgttggaac tggtcagcac aggggccggc accacggggg tatcgaagca
60
ctgtcgaaga tgctgggggc cctgggtgtg aggagaaaag cactggcgcc acggctactc
120
ctccggctgc tcaggtcccc aacgctccgg gccatggag gtgcttccgg ccggaatgtg
180
actactggga gtctcgggga gccgcagtgg ctgagggtag ccaccggggg gcgccttgga
240
acatcgccgg ccttgtttct cggacgtggg gcagccaccg gggggcgcca gggaggacgc
300
ttcgatacca aatgcctcgc ggctgccact tggggacgcc ttcttggtcc cgaagaagaa
360
ctccaggacg aggacagctg gaacgggggc ccagcaggg ccggactggg catgtgcgcc
420

```

<210> 2834

<211> 117
 <212> PRT
 <213> Homo sapiens

<400> 2834
 Met Leu Gly Ser Leu Val Leu Arg Arg Lys Ala Leu Ala Pro Arg Leu
 1 5 10 15
 Leu Leu Arg Leu Leu Arg Ser Pro Thr Leu Arg Gly His Gly Gly Ala
 20 25 30
 Ser Gly Arg Asn Val Thr Thr Gly Ser Leu Gly Glu Pro Gln Trp Leu
 35 40 45
 Arg Val Ala Thr Gly Gly Arg Pro Gly Thr Ser Pro Ala Leu Phe Ser
 50 55 60
 Gly Arg Gly Ala Ala Thr Gly Gly Arg Gln Gly Gly Arg Phe Asp Thr
 65 70 75 80
 Lys Cys Leu Ala Ala Ala Thr Trp Gly Arg Leu Pro Gly Pro Glu Glu
 85 90 95
 Thr Leu Pro Gly Gln Asp Ser Trp Asn Gly Val Pro Ser Arg Ala Gly
 100 105 110
 Leu Gly Met Cys Ala
 115

<210> 2835
 <211> 938
 <212> DNA
 <213> Homo sapiens

<400> 2835
 tttttttttt tttttttttt ttctgggtgc aagaggttta ttggggagcc atcccaggaa
 60
 gcccaaggcg ggggagtgagg gaagagaggg aaggagagag ccccgaggga agtatacagaa
 120
 tgagtgggtt actgctgcgg gcaactggga ctccatctct ctgggcatcc tctgagagtt
 180
 tatgtagaat acacttcaga attgtcctgc tcaaggacaa tgaagctgag gtctctgctcc
 240
 ttattgactc aggggttgctg ctccctggga cattaacccc ccaacacttc tagcttggccc
 300
 agtgcactga ctgagcacac agctgtggcc accagagaac ctctttgggc tgtgatacag
 360
 gaaaccatcg gtgtgcatgg taactctcta gcagtgtcct tcatgccggg acatggggac
 420
 acggggcaggc actgctggca tctgctaacc cggaggcccc atacttcaga accggtcagc
 480
 tgggccaagg cctctctaag gccagcggc tctcatgggc aaatgtcagg tgacacagag
 540
 tcagagaccc tgagtgtgag aggggaagat attggtgaag acctgttctc tgaggccctg
 600
 ggcggggcag tggggcagtg ggcgggggccc aagctgctgg accatggctg tgtggagagc
 660
 agcattctgg attcctctgc gggctctgct cccactacg aggtgtttgt ggcgtgagg
 720
 gggctgagga atctgtcaga ggaaaaatcga gacaagctgg accactgcct tcagggaagcc
 780

tctccccgct acaagtcctt gcggttctgg ggcagcgtgg gccctgcaga gtccacctgg
 840
 tgggtgtcctg agtcaagtcc tgcctccacgg cccagctccc cccagagggc acctgcggcc
 900
 tccctctggg acctctccgg atggggagtc cttggcca
 938

<210> 2836
 <211> 178
 <212> PRT
 <213> Homo sapiens

<400> 2836
 Met Pro Gly His Gly Asp Thr Gly Arg His Cys Trp His Leu Leu Thr
 1 5 10 15
 Pro Glu Ala His Thr Ser Glu Pro Val Ser Trp Ala Lys Ala Ser Leu
 20 25 30
 Arg Pro Ser Gly Ser His Gly Gln Met Ser Gly Asp Thr Glu Ser Glu
 35 40 45
 Thr Leu Ser Val Arg Gly Glu Asp Ile Gly Glu Asp Leu Phe Ser Glu
 50 55 60
 Ala Leu Gly Arg Ala Val Gly Gln Trp Ala Gly Ala Lys Leu Leu Asp
 65 70 75 80
 His Gly Cys Val Glu Ser Ser Ile Leu Asp Ser Ser Ala Gly Ser Ala
 85 90 95
 Pro His Tyr Glu Val Phe Val Ala Leu Arg Gly Leu Arg Asn Leu Ser
 100 105 110
 Glu Glu Asn Arg Asp Lys Leu Asp His Cys Leu Gln Glu Ala Ser Pro
 115 120 125
 Arg Tyr Lys Ser Leu Arg Phe Trp Gly Ser Val Gly Pro Ala Glu Ser
 130 135 140
 Thr Trp Trp Cys Pro Glu Ser Ser Pro Ala Pro Pro Pro Ser Ser Pro
 145 150 155 160
 Gln Arg Pro Pro Arg Pro Ser Leu Trp Asp Leu Ser Gly Trp Gly Val
 165 170 175
 Leu Gly

<210> 2837
 <211> 1250
 <212> DNA
 <213> Homo sapiens

<400> 2837
 nntttaccct ctttccccct tctcgaacac catgccacaa gaagagtgat ctttccccct
 60
 gttttcaciaa tggaggactc cggaagactc ttcagctccg aggagggaaga agctaactat
 120
 tgggaagatc tggcgatgac ctacaaacag agggcgagaa atacgcaaga ggaactccga
 180
 gaattccagg aggggaagccg agaatatgaa gctgaattgg agacgcagct gcaacaaatt
 240
 gaaaccagga acagagacct cctgtccgaa aataaccgcc ttcgcatgga gctggaaacc
 300

atcaaggaga agtttgaagt gcagcactct gaaggctacc ggcagatctc agccttggag
 360
 gatgacctcg cgcagaccaa agccattaaa gaccaattgc agaaatacat cagagagctg
 420
 gagcaagcaa atgacgccct ggaaagagcc aagcgcgcca cgatcatgtc tctcgaagac
 480
 tttgagcagc gcttgaatca ggccatcgaa agaaatgcct tcttggaag tgaacttgat
 540
 gaaaagaga atctcctgga atctgttcag agactgaagg atgaagccag agatttgcgg
 600
 caggaaactgg ccgtgcagca gaagcaggag aaacccaggga ccccatgcc cagctcagt
 660
 gaagctgaga ggacagacac agctgtgcag gccacgggct ccgtgccgtc cagcccat
 720
 gctcaccgag gaccagctc aagtttaaac acacctggga gcttcagacg tggcctggac
 780
 gacntccacc ggggggaccc cctcacacct gcgggccgga taccagccct caacattgtg
 840
 ggagacctac tgcggaaaagt cggggcactg gagtcctaac tcgtctctcg ccggaacctc
 900
 gtgtacgate agtcccaaaa ccgaacaggt ggcccagcct ctggggcgag cagcaagaac
 960
 agagatggcg gggagagacg gccaaagcag ccacagctgc ctttgggtga taaggggtca
 1020
 gtaccttcta ataaacctct cgctggcggg gagaaccocg ctgccccagg caagagacac
 1080
 tcacccccag cccacagcca tgtgtctttt taaattatag gattatttca gcaaacctta
 1140
 tctctctctc tgetccctgc aggcagcatt aggtgggtgc ttgtggcttg aacaaagggc
 1200
 tagagagagg gtcttgtttt gtgagacagg gtctcgctct gtcacctagg
 1250

<210> 2838

<211> 370

<212> PRT

<213> Homo sapiens

<400> 2838

Xaa Leu Pro Ser Ser Pro Leu Leu Glu His His Ala Thr Arg Arg Val
 1 5 10 15
 Ile Ser Ser Pro Val Phe Thr Met Glu Asp Ser Gly Lys Thr Phe Ser
 20 25 30
 Ser Glu Glu Glu Glu Ala Asn Tyr Trp Lys Asp Leu Ala Met Thr Tyr
 35 40 45
 Lys Gln Arg Ala Glu Asn Thr Gln Glu Glu Leu Arg Glu Phe Gln Glu
 50 55 60
 Gly Ser Arg Glu Tyr Glu Ala Glu Leu Glu Thr Gln Leu Gln Gln Ile
 65 70 75 80
 Glu Thr Arg Asn Arg Asp Leu Leu Ser Glu Asn Asn Arg Leu Arg Met
 85 90 95
 Glu Leu Glu Thr Ile Lys Glu Lys Phe Glu Val Gln His Ser Glu Gly
 100 105 110
 Tyr Arg Gln Ile Ser Ala Leu Glu Asp Asp Leu Ala Gln Thr Lys Ala

```

115          120          125
Ile Lys Asp Gln Leu Gln Lys Tyr Ile Arg Glu Leu Glu Gln Ala Asn
130          135          140
Asp Ala Leu Glu Arg Ala Lys Arg Ala Thr Ile Met Ser Leu Glu Asp
145          150          155          160
Phe Glu Gln Arg Leu Asn Gln Ala Ile Glu Arg Asn Ala Phe Leu Glu
165          170          175
Ser Glu Leu Asp Glu Lys Glu Asn Leu Leu Glu Ser Val Gln Arg Leu
180          185          190
Lys Asp Glu Ala Arg Asp Leu Arg Gln Glu Leu Ala Val Gln Gln Lys
195          200          205
Gln Glu Lys Pro Arg Thr Pro Met Pro Ser Ser Val Glu Ala Glu Arg
210          215          220
Thr Asp Thr Ala Val Gln Ala Thr Gly Ser Val Pro Ser Thr Pro Ile
225          230          235          240
Ala His Arg Gly Pro Ser Ser Ser Leu Asn Thr Pro Gly Ser Phe Arg
245          250          255
Arg Gly Leu Asp Asp Xaa His Arg Gly Thr Pro Leu Thr Pro Ala Ala
260          265          270
Arg Ile Ser Ala Leu Asn Ile Val Gly Asp Leu Leu Arg Lys Val Gly
275          280          285
Ala Leu Glu Ser Lys Leu Ala Ser Cys Arg Asn Leu Val Tyr Asp Gln
290          295          300
Ser Pro Asn Arg Thr Gly Gly Pro Ala Ser Gly Arg Ser Ser Lys Asn
305          310          315          320
Arg Asp Gly Gly Glu Arg Arg Pro Ser Ser Thr Ser Val Pro Leu Gly
325          330          335
Asp Lys Gly Ser Val Pro Ser Asn Lys Pro Leu Ala Gly Gly Glu Asn
340          345          350
Pro Pro Ala Pro Gly Lys Arg His Ser Pro Pro Ala His Ser His Val
355          360          365
Ser Phe
370

<210> 2839
<211> 606
<212> DNA
<213> Homo sapiens

<400> 2839
attctgaatc tegtcaagat tcacaagatg cattctttct tggactacat catgggtggc
60
tgccaaatcc agtttacagt agctatagat ttgcgcgcca caaacgggga cccaggaac
120
agctgttctt tgcactacat ccacccttac caaccctaatg agtatctgaa agctttggta
180
gctgtggggg agatttgcca agactatgac agtgacaaaa tgttccttgc ctttgggttt
240
ggcgccagga tacctccaga gtacacggtc tctcatgact ttgcaatcaa ctttaaatgaa
300
gacaaccacg aatgtgcagg aattcaagga gttgtggaag cctatcagag ctgtcttctt
360
aagctccaac tctacggtcc caccaacatt gcccccatca tccagaaggt tgccaagtca
420

```

gcgtcagagg aaactaacac caaagaggca tcgcaatact tcctcctgct gatcctgaca
 480
 gatgggtgta tcacagacat gggcgacacc cgggagggca ttgtccatgc ctcccaccto
 540
 cccatgtcag tcctcatcgt gggagtaggg aacgctgact tcagtgcacat gcagatgctg
 600
 gacggg
 606

<210> 2840
 <211> 202
 <212> PRT
 <213> Homo sapiens

<400> 2840
 Ile Leu Asn Leu Cys Lys Ile His Lys Met His Ser Phe Leu Asp Tyr
 1 5 10 15
 Ile Met Gly Gly Cys Gln Ile Gln Phe Thr Val Ala Ile Asp Phe Ala
 20 25 30
 Ala Thr Asn Gly Asp Pro Arg Asn Ser Cys Ser Leu His Tyr Ile His
 35 40 45
 Pro Tyr Gln Pro Asn Glu Tyr Leu Lys Ala Leu Val Ala Val Gly Glu
 50 55 60
 Ile Cys Gln Asp Tyr Asp Ser Asp Lys Met Phe Pro Ala Phe Gly Phe
 65 70 75 80
 Gly Ala Arg Ile Pro Pro Glu Tyr Thr Val Ser His Asp Phe Ala Ile
 85 90 95
 Asn Phe Asn Glu Asp Asn Pro Glu Cys Ala Gly Ile Gln Gly Val Val
 100 105 110
 Glu Ala Tyr Gln Ser Cys Leu Pro Lys Leu Gln Leu Tyr Gly Pro Thr
 115 120 125
 Asn Ile Ala Pro Ile Ile Gln Lys Val Ala Lys Ser Ala Ser Glu Glu
 130 135 140
 Thr Asn Thr Lys Glu Ala Ser Gln Tyr Phe Ile Leu Leu Ile Leu Thr
 145 150 155 160
 Asp Gly Val Ile Thr Asp Met Gly Asp Thr Arg Glu Ala Ile Val His
 165 170 175
 Ala Ser His Leu Pro Met Ser Val Ile Ile Val Gly Val Gly Asn Ala
 180 185 190
 Asp Phe Ser Asp Met Gln Met Leu Asp Gly
 195 200

<210> 2841
 <211> 2065
 <212> DNA
 <213> Homo sapiens

<400> 2841
 nnctctagc tgctgtcctc tgctgacatt tggcaggcag cttctgccag ccaaatgggc
 60
 tcacccacgc cccccggctc tgcaccact gtgctgccca caggagtggg cctgcccatg
 120
 gaaggccag ttcaggtggc cggagctect gagctgccct aggggactgc tgtgggtctg
 180

aggtgggtgat gtccccacg getgcctgcg cctgagcccc cagcatcca cccctggggc
240
cactctgctg ttcaggagca cccaccctg tctcgacca tgagcagccc cccagcttac
300
cctggcatca ggatctcagg gtgccgggcc cttggagcag aaggcagcaa tgcagagtcc
360
ctggacaggg tcttgccacc tgtgggact gggcgtcttc ccggaagcg gaccaccage
420
cagtgcgaagt cagagcctcc cctgctgctg acaagcaagc gtaccatcta caccgcgggg
480
cgcccgccct ggtacaatga acacggcac caatccaaag aggccttcgc catcgcttg
540
ggaggcgcca gtgcctctgg gaagaccact gtggccagaa tgatcatcga ggcctggat
600
gtgccctggg tggctctgct gtccatggac tccttctaca aggtgctcca cagcctcccc
660
caccaggtgc tgaactgagc gcagcaggaa caggccgcac acaacaactt caacttcgac
720
caccagatg cctttgactt cgacctcacc atttccaccc tcaagaagct gaagcagggg
780
aagagtgatc aggtgcccac ttatgacttc accacgcaca gccggaagaa ggactggaaa
840
acactgtatg gtgcaaacgt catcatcttt gaggggcatca tggcctttgc tgacaagaca
900
ctgttgagc tcctggacat gaagatcttt gtggacacag actccgacat ccgcttggt
960
cgccggtgc gccgggacat cagtgcgcgc ggcggggaca tcgaggggtg catcaagcag
1020
tacaacaagt ttgtcaagcc ctcttcgac cagtacatcc agcccacat gcgcctggca
1080
gacatcgtgg tccccagagg gagcggcaac acggtggcca tcgacctgat tgtgcagcac
1140
gtgcacagcc agctggagga gcgtgaactc agcgtcaggc ctgcgtggc ctcggcacac
1200
cagtgcacc cgctgcccc gacgtgagc gtcctgaaga gcacgccga ggtacggggc
1260
atgcacacca tcatcagggc caaggagacc agtcgcgac agttcatctt ctactccaag
1320
agactgatgc ggtgctcat cgagcacgcg ctctcttcc tgcctttca ggaactgcgc
1380
gtacagacc cgcaggggca ggactatgcy ggcaagtgc atgcggggaa gcagatcacc
1440
ggtgtgtcca ttctgcgcgc cggtaaacc atggagcccc cgctgcgcgc tgtgtgcaaa
1500
gagtgcgca tcggcaacct cctcatccag accaaccagc ttaccgggga gcccgagctc
1560
cactacctga ggctgcccac ggacatcagc gatgaccagc tgatcctcat ggactgcacc
1620
gtgtccacgg gcgcggcggc catgatggca gtgcgcgtgc tcctggacca gcagctgcct
1680
gaggacaaga tctttttgct gtgcgtgctc atggcagaga tggcggtgca ctcagtgcc
1740
tatgcatttc cgcgagtgag aatcatcacc acggcggtg acaagcgggt caatgacctt
1800

ttccgcatca tcccaggcat tgggaacttt ggcgaccgct actttggggac agacgcggtc
 1860
 cccgatggca gtgacgagga ggaagtggcc tacacgggtt agctgcccag tgagccatcc
 1920
 cgtccccacc accctctctcc tgctctctga cccaggactg ctgaatacaa agatgttaat
 1980
 ttttaaaatg ttactagtat aattttattct atgcatttta taaaataaat aaagctttag
 2040
 aaaaatgaaa aaaaaaaaaa aaaaa
 2065

<210> 2842

<211> 540

<212> PRT

<213> Homo sapiens

<400> 2842

Met	Ser	Ser	Pro	Pro	Ala	Tyr	Pro	Gly	Ile	Arg	Ile	Ser	Gly	Cys	Arg
1				5					10					15	
Ala	Leu	Gly	Ala	Glu	Gly	Ser	Asn	Ala	Glu	Ser	Leu	Asp	Arg	Leu	Leu
			20					25					30		
Pro	Pro	Val	Gly	Thr	Gly	Arg	Ser	Pro	Arg	Lys	Arg	Thr	Thr	Ser	Gln
			35				40					45			
Cys	Lys	Ser	Glu	Pro	Pro	Leu	Leu	Arg	Thr	Ser	Lys	Arg	Thr	Ile	Tyr
			50				55				60				
Thr	Ala	Gly	Arg	Pro	Pro	Trp	Tyr	Asn	Glu	His	Gly	Thr	Gln	Ser	Lys
					70					75				80	
Glu	Ala	Phe	Ala	Ile	Gly	Leu	Gly	Gly	Gly	Ser	Ala	Ser	Gly	Lys	Thr
				85				90						95	
Thr	Val	Ala	Arg	Met	Ile	Ile	Glu	Ala	Leu	Asp	Val	Pro	Trp	Val	Val
				100				105						110	
Leu	Leu	Ser	Met	Asp	Ser	Phe	Tyr	Lys	Val	Leu	His	Ser	Leu	Pro	His
				115			120					125			
Gln	Val	Leu	Thr	Glu	Gln	Gln	Gln	Glu	Gln	Ala	Ala	His	Asn	Asn	Phe
				130			135					140			
Asn	Phe	Asp	His	Pro	Asp	Ala	Phe	Asp	Phe	Asp	Leu	Ile	Ile	Ser	Thr
					150					155				160	
Leu	Lys	Lys	Leu	Lys	Gln	Gly	Lys	Ser	Val	Lys	Val	Pro	Ile	Tyr	Asp
					165				170					175	
Phe	Thr	Thr	His	Ser	Arg	Lys	Lys	Asp	Trp	Lys	Thr	Leu	Tyr	Gly	Ala
				180				185					190		
Asn	Val	Ile	Ile	Phe	Glu	Gly	Ile	Met	Ala	Phe	Ala	Asp	Lys	Thr	Leu
				195			200					205			
Leu	Glu	Leu	Leu	Asp	Met	Lys	Ile	Phe	Val	Asp	Thr	Asp	Ser	Asp	Ile
					210		215				220				
Arg	Leu	Val	Arg	Arg	Leu	Arg	Arg	Asp	Ile	Ser	Glu	Arg	Gly	Arg	Asp
					225		230				235			240	
Ile	Glu	Gly	Val	Ile	Lys	Gln	Tyr	Asn	Lys	Phe	Val	Lys	Pro	Ser	Phe
					245				250					255	
Asp	Gln	Tyr	Ile	Gln	Pro	Thr	Met	Arg	Leu	Ala	Asp	Ile	Val	Val	Pro
					260			265				270			
Arg	Gly	Ser	Gly	Asn	Thr	Val	Ala	Ile	Asp	Leu	Ile	Val	Gln	His	Val
				275			280					285			
His	Ser	Gln	Leu	Glu	Glu	Arg	Glu	Leu	Ser	Val	Arg	Ala	Ala	Leu	Ala

```

      290              295              300
Ser Ala His Gln Cys His Pro Leu Pro Arg Thr Leu Ser Val Leu Lys
305              310              315              320
Ser Thr Pro Gln Val Arg Gly Met His Thr Ile Ile Arg Asp Lys Glu
              325              330              335
Thr Ser Arg Asp Glu Phe Ile Phe Tyr Ser Lys Arg Leu Met Arg Leu
              340              345              350
Leu Ile Glu His Ala Leu Ser Phe Leu Pro Phe Gln Asp Cys Val Val
              355              360              365
Gln Thr Pro Gln Gly Gln Asp Tyr Ala Gly Lys Cys Thr Ala Gly Lys
              370              375              380
Gln Ile Thr Gly Val Ser Ile Leu Arg Ala Gly Glu Thr Met Glu Pro
385              390              395              400
Ala Leu Arg Ala Val Cys Lys Asp Val Arg Ile Gly Thr Ile Leu Ile
              405              410              415
Gln Thr Asn Gln Leu Thr Gly Glu Pro Glu Leu His Tyr Leu Arg Leu
              420              425              430
Pro Lys Asp Ile Ser Asp Asp His Val Ile Leu Met Asp Cys Thr Val
              435              440              445
Ser Thr Gly Ala Ala Ala Met Met Ala Val Arg Val Leu Leu Asp His
              450              455              460
Asp Val Pro Glu Asp Lys Ile Phe Leu Leu Ser Leu Leu Met Ala Glu
              465              470              475              480
Met Gly Val His Ser Val Ala Tyr Ala Phe Pro Arg Val Arg Ile Ile
              485              490              495
Thr Thr Ala Val Asp Lys Arg Val Asn Asp Leu Phe Arg Ile Ile Pro
              500              505              510
Gly Ile Gly Asn Phe Gly Asp Arg Tyr Phe Gly Thr Asp Ala Val Pro
              515              520              525
Asp Gly Ser Asp Glu Glu Glu Val Ala Tyr Thr Gly
              530              535              540

```

<210> 2843

<211> 497

<212> DNA

<213> Homo sapiens

<400> 2843

```

cctaggtatg aaccccaaaag ccctggctat gaacctcggga gccccgggta tgaaccccg
60
agccctggct atgaatctga gagctctaga tatgaatccc agaacactga gctcaaaacc
120
caaaagccag aatttgaagc tcaaagtctc aaattccagg aaggtgcgga gatgctctcg
180
aaccccgagg aaaagagtcc ttgaaatc tccgtaggag ttcacccccc ggactccttc
240
actcaggggt ttggggagca gccacaggg gacctgccca tagggccacc ttttgagatg
300
cccacagggg cctgtctgtc tacacgcgag ttgagatgc ttcagaatcc cctgggtctc
360
acaggagccc ttcagaggtc aggtcggcgg ggtggccggg cccgggggtg gcagggccct
420
cggcctaaca tctgtggcat ctgggggaag agcttcgggc gggactaccc tgatccagca
480

```

caggcatcca caccggt
497

<210> 2844

<211> 165

<212> PRT

<213> Homo sapiens

<400> 2844

```

Pro Arg Tyr Glu Pro Gln Ser Pro Gly Tyr Glu Pro Arg Ser Pro Gly
 1           5           10           15
Tyr Glu Pro Arg Ser Pro Gly Tyr Glu Ser Ser Arg Tyr Glu
 20           25           30
Ser Gln Asn Thr Glu Leu Lys Thr Gln Ser Pro Glu Phe Glu Ala Gln
 35           40           45
Ser Ser Lys Phe Gln Glu Gly Ala Glu Met Leu Asn Pro Glu Glu
 50           55           60
Lys Ser Pro Leu Asn Ile Ser Val Gly Val His Pro Leu Asp Ser Phe
 65           70           75           80
Thr Gln Gly Phe Gly Glu Gln Pro Thr Gly Asp Leu Pro Ile Gly Pro
 85           90           95
Pro Phe Glu Met Pro Thr Gly Ala Leu Leu Ser Thr Pro Gln Phe Glu
100           105           110
Met Leu Gln Asn Pro Leu Gly Leu Thr Gly Ala Leu Arg Gly Pro Gly
115           120           125
Arg Arg Gly Gly Arg Ala Arg Gly Gly Gln Gly Pro Arg Pro Asn Ile
130           135           140
Cys Gly Ile Trp Gly Lys Ser Phe Gly Arg Asp Tyr Pro Asp Pro Ala
145           150           155           160
Gln Ala Ser Thr Pro
165

```

<210> 2845

<211> 934

<212> DNA

<213> Homo sapiens

<400> 2845

```

ctggatggga tggacggttg cccaagcggc agtggcagtg gaggtagccc tcttgcctct
 60
accgtgtgcg cacgggtgtg gcttctcggc tggacacaga gtttggggag gccacttccc
120
ttcaccaagg ctccgggttc tatagcccct tcttgggaca gctgcatggg atccggcctc
180
tcaggcccca cggtaggtgc gggggctgtg gaaaggtctc agctgcaggg ggaatgatgt
240
gacctccagt tgcaacgtct cccccgcgt gagtgggggt atcaggccta gtcacctgtg
300
tgtcagctga gtgtcgagtg ccacctgcgt actggatgct gctctcagtg ctccgggtgc
360
acagcacaca aaaatagttc tcacgttgcc gtggagagac aagcagtc aa cgcagatata
420
tcctgtggca agtgatggta aatgctgtgg caagaaagca ggttctggag gtgaaggcg
480

```

gtgggggaga cagggcaggg aaggtagca gcggtctgag agtcctctgt ggcacctcgt
 540
 gggcattagc caaagccgctc ctgatcccaa gggacagggc agggaaaggtg agtagtggtc
 600
 cgagagtgccc ttgtggcacc tcatgggcat cggccaagc cgtcatgacc ccgagtagtg
 660
 gccaggagtc agggcctctc ctctacgtg ggcctgaagg ggctgctgta attcaggagg
 720
 gtaggcttgg gatgaagggt ctggaatttc tgtctgccag cattagccta atgcaaatct
 780
 ttctctattc ttctctattg agttaaaagt cctgggtggca ttgtcgggtg gggcacattg
 840
 ctgttgatcat agggctgttt gccttggtt tctgggagcc ccattgctga gcttacaacg
 900
 tcactctgct ctacgctccc acggcctaac catg
 934

<210> 2846

<211> 149

<212> PRT

<213> Homo sapiens

<400> 2846

Met	Pro	Met	Arg	Cys	His	Lys	Gly	Leu	Ser	Asp	His	Tyr	Ser	Pro	Ser
1				5					10					15	
Leu	Pro	Cys	Pro	Leu	Gly	Ser	Gly	Arg	Leu	Trp	Leu	Met	Pro	Thr	Arg
			20					25					30		
Cys	His	Lys	Gly	Leu	Ser	Asp	Arg	Cys	Ser	Pro	Ser	Leu	Pro	Cys	Leu
		35					40					45			
Pro	His	Arg	Pro	Ser	Pro	Pro	Glu	Pro	Ala	Phe	Leu	Pro	Gln	His	Leu
			50				55				60				
Pro	Ser	Leu	Ala	Thr	Gly	Tyr	Ile	Cys	Val	Asp	Cys	Leu	Ser	Leu	His
65				70						75				80	
Gly	Asn	Val	Arg	Thr	Ile	Phe	Val	Cys	Cys	Gly	Thr	Ala	Ala	Leu	Arg
			85						90					95	
Ala	Ala	Ser	Ser	Thr	Gln	Val	Ala	Leu	Asp	Thr	Asp	Cys	Thr	Gln	Gly
			100					105				110			
Glu	Leu	Gly	Leu	Ile	Thr	Pro	Leu	Thr	Arg	Gly	Glu	Thr	Leu	Gln	Leu
		115				120				125					
Glu	Val	Thr	Phe	Ile	Pro	Leu	Gln	Leu	Arg	Pro	Phe	His	Ser	Pro	Arg
	130					135					140				
Thr	His	Arg	Gly	Ala											

<210> 2847

<211> 2830

<212> DNA

<213> Homo sapiens

<400> 2847

nnatgatcatg atattgcaca tatccctgcc tctgctgtta taccagcctc tacctctcag
 60
 gtccctccca tagcaacagt tctcctctgc ctcaacaactt cagctccatt aattgcgcgt
 120

cagctctcac atgaccacga atctgttggc cctcctagcc tggagtctca gcccactca
180
aagacagaaa gatcaaaatc atatgatgag ggtctggatg attacagaga agatgcaaaa
240
ttgtccttta agcagctatc tagtctgaag ggaatcaaga tcgcagacag ccaaaagtca
300
tcagaagact ctgggtccag aaaagattct tcctcagagg tcttcagtga tgetgccaag
360
gaaggggtggc ttcatttccg accccttgtc accgataagg gcaagcgagt tgggtggaagt
420
attcggccat ggaacacgat gtatgttgtc cttcggggtc attcacttta cctgtacaaa
480
gataaaagag agcagacgac tccgtctgag gaagagcagc ccactcagtgt taatgcttgc
540
ttgatagaca tctcttacag tgagaccaag agggaaaaatg tgtttcgact caccacgtcc
600
gactgtgaat gcctgtttca ggctgaagac agagatgata tgctagcttg gatcaagaog
660
atccaggaga gcagcaacct aaacgaagag gacactggag tcactaacag ggaactaatt
720
agtccaagaa taaaagaata caacaatctg atgagcaaaag cagaacagtt gcaaaaaaca
780
cctcgccaga gtctcagcat caggcaaaact ttgcttggtg ctaaatcaga gccaagact
840
caaaagccac actctccgaa ggaagagtcg gaaaggaaac ttctcagtaa agatgatacc
900
agtcccccaa aagacaaaag cacatggaga aaaggcattc caagtatcat gagaagaca
960
tttgagaaaa agccaactgc tacaggaaact ttcggcgctc gactagatga ctgcccacca
1020
gctcactacta atcggtatat tccattaata gttgacatat gttgcaaatt agttgaagaa
1080
agaggtcttg aatatacagg tatttataga gttcctggaa ataatgcagc catctcaagt
1140
atgcaagaag aactcaacaa gggaaatggct gatattgata tacaagatga taaatggcga
1200
gatttgaatg tgataagcag ttactactaaa tcttctttca gaaaactccc tgagcctctc
1260
ttcacaaatg ataaatatgc tgatttttatt gaagccaatc gtaaagaaga tctctagat
1320
cgtctgaaaa cattaaaaag actaatcac gatttgcctg aacatcatta tgaaacactt
1380
aagttccttt cagctcatct gaagacagtg gcagaaaaat cagaaaaaaa taagatggaa
1440
ccaagaaacc tagcaatagt gtttgggtccc acccttgctc gaacatcaga agacaacatg
1500
accacatagg tccccacat gcctgaccag tacaagattg tagaaacgct catccagcac
1560
catgactggt ttttcacaga agaagtgct gaagagcctc ttacaacagt gcaggaggaa
1620
agcacagtag actcccagcc agtgccaaac atagatcatt tactcaccia cattggaagg
1680
acaggagtct cccagagaga tgtatcagat tcagctacta gtgactcaac aaaatctaag
1740

gggtcttggg gatctggaaa ggatcagtat agcaggggaaac tgcttgtgtc ctccatcttt
 1800
 gcagctgcta gtcgcaagag gaagaagccg aaagaaaaag cacagcctag cagctcagaa
 1860
 gatgaactgg acaatgtatt ttttaagaaa gaaaatgtgg aacagtgtca caatgatact
 1920
 aaagaggagt ccaaaaaaga aagtggagaca ctgggcagaa aacagaagat catcattgcc
 1980
 aaagaaaaca gcactaggaa agaccccagc acgacaaaag atgaaaagat atcactagga
 2040
 aaagagagca cgccttctga agaaccctca ccaccacaca actcaaaaaca caacaagtca
 2100
 ccaactctca gctgtgctt tgccatctg aaagagagcc ccagggtcact tctggcacag
 2160
 aagtcctccc accttgaaga gacaggctct gactctggca ctttgcctag cacgtcttcc
 2220
 caggcctccc tggcaagggt ttccatgaag aatatcaacca gtccagaaac gaaacatagc
 2280
 gagtttttgg ccaacgtcag caccatcacc tcagattatt ccaccacatc gtctgtctaca
 2340
 tacttgacta gcctggactc cagtcgactg agccctgagg tgcaatccgt ggcagagagc
 2400
 aaggggggacg aggcagatga cgagagaagc gaactcatca gtgaaggggc gcctgtggaa
 2460
 accgacagcg ggaacgagtt tcccattttc cccacagcct tgacttcaga gaggcttttc
 2520
 cgaggagaac tgcaaaaagt gactaagagc agccggagaa attctgaatg aagtgaagta
 2580
 agttgcacgc aggggaagtt aacatcaagt ttagatagcc ggagacagct cttcagttcc
 2640
 cataaaactca tcacatgtga tactctctcc aggaaaaaat cagcgagatt caagtcagac
 2700
 agtgggaagtc taggagatgc caagaacgag aaagaaacac cttcattaac taaagtgtt
 2760
 gatgttatga aaaaaggaaa gtcaactggg agtttactga caccaccagc aggcgaatcc
 2820
 gaaaaaacag
 2830

<210> 2848

<211> 856

<212> PRT

<213> Homo sapiens

<400> 2848

Xaa Asp His Asp Ile Ala His Ile Pro Ala Ser Ala Val Ile Ser Ala
 1 5 10 15
 Ser Thr Ser Gln Val Pro Ser Ile Ala Thr Val Pro Pro Cys Leu Thr
 20 25 30
 Thr Ser Ala Pro Leu Ile Arg Arg Gln Leu Ser His Asp His Glu Ser
 35 40 45
 Val Gly Pro Pro Ser Leu Asp Ala Gln Pro Asn Ser Lys Thr Glu Arg
 50 55 60
 Ser Lys Ser Tyr Asp Glu Gly Leu Asp Asp Tyr Arg Glu Asp Ala Lys

65				70				75				80			
Leu	Ser	Phe	Lys	His	Val	Ser	Ser	Leu	Lys	Gly	Ile	Lys	Ile	Ala	Asp
				85				90						95	
Ser	Gln	Lys	Ser	Ser	Glu	Asp	Ser	Gly	Ser	Arg	Lys	Asp	Ser	Ser	Ser
			100					105					110		
Glu	Val	Phe	Ser	Ser	Ala	Ala	Lys	Glu	Gly	Trp	Leu	His	Phe	Arg	Pro
			115				120					125			
Leu	Val	Thr	Asp	Lys	Gly	Lys	Arg	Val	Gly	Gly	Ser	Ile	Arg	Pro	Trp
			130				135				140				
Lys	Gln	Met	Tyr	Val	Val	Leu	Arg	Gly	His	Ser	Leu	Tyr	Leu	Tyr	Lys
			145				150			155				160	
Asp	Lys	Arg	Glu	Gln	Thr	Thr	Pro	Ser	Glu	Glu	Gln	Pro	Ile	Ser	
			165					170					175		
Val	Asn	Ala	Cys	Leu	Ile	Asp	Ile	Ser	Tyr	Ser	Glu	Thr	Lys	Arg	Lys
			180					185					190		
Asn	Val	Phe	Arg	Leu	Thr	Thr	Ser	Asp	Cys	Glu	Cys	Leu	Phe	Gln	Ala
			195				200					205			
Glu	Asp	Arg	Asp	Asp	Met	Leu	Ala	Trp	Ile	Lys	Thr	Ile	Gln	Glu	Ser
			210				215					220			
Ser	Asn	Leu	Asn	Glu	Glu	Asp	Thr	Gly	Val	Thr	Asn	Arg	Asp	Leu	Ile
			225				230			235				240	
Ser	Arg	Arg	Ile	Lys	Glu	Tyr	Asn	Asn	Leu	Met	Ser	Lys	Ala	Glu	Gln
			245					250					255		
Leu	Pro	Lys	Thr	Pro	Arg	Gln	Ser	Leu	Ser	Ile	Arg	Gln	Thr	Leu	Leu
			260					265					270		
Gly	Ala	Lys	Ser	Glu	Pro	Lys	Thr	Gln	Ser	Pro	His	Ser	Pro	Lys	Glu
			275				280					285			
Glu	Ser	Glu	Arg	Lys	Leu	Leu	Ser	Lys	Asp	Asp	Thr	Ser	Pro	Pro	Lys
			290				295				300				
Asp	Lys	Gly	Thr	Trp	Arg	Lys	Gly	Ile	Pro	Ser	Ile	Met	Arg	Lys	Thr
			305				310			315				320	
Phe	Glu	Lys	Lys	Pro	Thr	Ala	Thr	Gly	Thr	Phe	Gly	Val	Arg	Leu	Asp
			325					330					335		
Asp	Cys	Pro	Pro	Ala	His	Thr	Asn	Arg	Tyr	Ile	Pro	Leu	Ile	Val	Asp
			340					345					350		
Ile	Cys	Cys	Lys	Leu	Val	Glu	Glu	Arg	Gly	Leu	Glu	Tyr	Thr	Gly	Ile
			355				360					365			
Tyr	Arg	Val	Pro	Gly	Asn	Asn	Ala	Ala	Ile	Ser	Ser	Met	Gln	Glu	Glu
			370				375				380				
Leu	Asn	Lys	Gly	Met	Ala	Asp	Ile	Asp	Ile	Gln	Asp	Asp	Lys	Trp	Arg
			385				390			395				400	
Asp	Leu	Asn	Val	Ile	Ser	Ser	Leu	Leu	Lys	Ser	Phe	Phe	Arg	Lys	Leu
			405					410					415		
Pro	Glu	Pro	Leu	Phe	Thr	Asn	Asp	Lys	Tyr	Ala	Asp	Phe	Ile	Glu	Ala
			420					425					430		
Asn	Arg	Lys	Glu	Asp	Pro	Leu	Asp	Arg	Leu	Lys	Thr	Leu	Lys	Arg	Leu
			435				440					445			
Ile	His	Asp	Leu	Pro	Glu	His	His	Tyr	Glu	Thr	Leu	Lys	Phe	Leu	Ser
			450				455				460				
Ala	His	Leu	Lys	Thr	Val	Ala	Glu	Asn	Ser	Glu	Lys	Asn	Lys	Met	Glu
			465				470			475				480	
Pro	Arg	Asn	Leu	Ala	Ile	Val	Phe	Gly	Pro	Thr	Leu	Val	Arg	Thr	Ser
			485					490					495		
Glu	Asp	Asn	Met	Thr	His	Met	Val	Thr	His	Met	Pro	Asp	Gln	Tyr	Lys


```

      500              505              510
Ile Val Glu Thr Leu Ile Gln His His Asp Trp Phe Phe Thr Glu Glu
      515              520              525
Gly Ala Glu Glu Pro Leu Thr Thr Val Gln Glu Glu Ser Thr Val Asp
      530              535              540
Ser Gln Pro Val Pro Asn Ile Asp His Leu Leu Thr Asn Ile Gly Arg
545      550      555
Thr Gly Val Ser Pro Gly Asp Val Ser Asp Ser Ala Thr Ser Asp Ser
      565      570      575
Thr Lys Ser Lys Gly Ser Trp Gly Ser Gly Lys Asp Gln Tyr Ser Arg
      580      585      590
Glu Leu Leu Val Ser Ser Ile Phe Ala Ala Ser Arg Lys Arg Lys
      595      600      605
Lys Pro Lys Glu Lys Ala Gln Pro Ser Ser Ser Glu Asp Glu Leu Asp
      610      615      620
Asn Val Phe Phe Lys Lys Glu Asn Val Glu Gln Cys His Asn Asp Thr
625      630      635
Lys Glu Glu Ser Lys Lys Glu Ser Glu Thr Leu Gly Arg Lys Gln Lys
      645      650      655
Ile Ile Ile Ala Lys Glu Asn Ser Thr Arg Lys Asp Pro Ser Thr Thr
      660      665      670
Lys Asp Glu Lys Ile Ser Leu Gly Lys Glu Ser Thr Pro Ser Glu Glu
      675      680      685
Pro Ser Pro Pro His Asn Ser Lys His Asn Lys Ser Pro Thr Leu Ser
      690      695      700
Cys Arg Phe Ala Ile Leu Lys Glu Ser Pro Arg Ser Leu Leu Ala Gln
705      710      715
Lys Ser Ser His Leu Glu Glu Thr Gly Ser Asp Ser Gly Thr Leu Leu
      725      730      735
Ser Thr Ser Ser Gln Ala Ser Leu Ala Arg Phe Ser Met Lys Lys Ser
      740      745      750
Thr Ser Pro Glu Thr Lys His Ser Glu Phe Leu Ala Asn Val Ser Thr
      755      760      765
Ile Thr Ser Asp Tyr Ser Thr Thr Ser Ser Ala Thr Tyr Leu Thr Ser
      770      775      780
Leu Asp Ser Ser Arg Leu Ser Pro Glu Val Gln Ser Val Ala Glu Ser
785      790      795
Lys Gly Asp Glu Ala Asp Asp Glu Arg Ser Glu Leu Ile Ser Glu Gly
      805      810      815
Arg Pro Val Glu Thr Asp Ser Gly Asn Glu Phe Pro Ile Phe Pro Thr
      820      825      830
Ala Leu Thr Ser Glu Arg Leu Phe Arg Gly Glu Leu Gln Lys Val Thr
      835      840      845
Lys Ser Ser Arg Arg Asn Ser Glu
      850      855

```

<210> 2849

<211> 380

<212> DNA

<213> Homo sapiens

<400> 2849

gcgcgcgtgg agagggcgcg ggagttggca ttcggtgggc ctggcagtta gctgagcacg

60

ccctctgagc cgctcggtgg acaccaggca ctctagtagg cctggcctac ccagaaacag
 120
 caggagagag aagaaacagg ccagctgtga gaagccaagg acaccgagtc ggtcatggca
 180
 cctaaggcgg caaagggggc caagccagag ccagcaccag ctccacctcc acccggggcc
 240
 aaacccgagg aagacaagaa ggacggtaag gagccatcgg acaaacctca aaaggcggtg
 300
 caggaccata aggagccatc ggacaaacct caaaaggcgg tgcagcccaa gcacgaagtg
 360
 ggcacgaagg aggggtgtcg
 380

<210> 2850

<211> 76

<212> PRT

<213> Homo sapiens

<400> 2850

Glu	Ala	Lys	Asp	Thr	Glu	Ser	Val	Met	Ala	Pro	Lys	Ala	Ala	Lys	Gly
1			5					10						15	
Ala	Lys	Pro	Glu	Pro	Ala	Pro	Ala	Pro	Pro	Pro	Pro	Gly	Ala	Lys	Pro
		20					25					30			
Glu	Glu	Asp	Lys	Lys	Asp	Gly	Lys	Glu	Pro	Ser	Asp	Lys	Pro	Gln	Lys
		35				40					45				
Ala	Val	Gln	Asp	His	Lys	Glu	Pro	Ser	Asp	Lys	Pro	Gln	Lys	Ala	Val
	50				55				60						
Gln	Pro	Lys	His	Glu	Val	Gly	Thr	Lys	Glu	Gly	Cys				
65				70					75						

<210> 2851

<211> 2459

<212> DNA

<213> Homo sapiens

<400> 2851

nntgatcaga gttcgactct tgcccaacac tctgttgaac tgactttacc caatcatcat
 60
 ccatttcata gagatttgct ccgatatgcc aagctgatgg agtgggctaaa gagtacagat
 120
 tatggaaaat atgaaggact aacaaagaat tacatggatt atttatcccg actatatgaa
 180
 agagaaaatca aagatttctt tgaagttgca aagatcaaga tgactggcac aactaaagaa
 240
 agcaagaagt ttggtcttca tggaagtctg gggaaaattaa ctggatctac ttctagtcta
 300
 aataagctca gtgttcagag ttcagggaat cgagatctc agtcatcttc cctgttggat
 360
 atgggaaaca tgtctgcctc tgatctcgat gttgctgaca ggaccaaat tgataagatc
 420
 tttgaacagg tactaagtga actggagccc ctatgtctgg cagaacagga cttcataagt
 480
 aaatttttca aactacagca acatcaaagt gtgcctggaa ctatgaaatt ttaagactga
 540

gcaggctttt gctatatcaa tactagtcaa attgttggtc ttttattatg taaagtcct
600
gaataatttt tgcaggctga agcagaggac ctggatggag gaacattatc acggcaacat
660
aattgtggca caccactgcc tgtttcatct gagaagata tgatccgcca gatgatgatt
720
aaaatatttc gctgcattga gccagagctg aacaacctaa ttgcattagg agacaaaatt
780
gatagcttta actctcttta tatgttagtc aaaatgagtc atcatgtgtg gactgcacaa
840
aatgtggacc ctgcttcttt cctaagtaact acattgggaa atgttttggg gactgtcaaa
900
aggaactttg acaaatgcat tagtaaccaa ataaggcaaa tggagaagt aaagatctca
960
aaaaagagta aagttggaat tcttccattt gttgctgaat ttgaagaatt tgctggactt
1020
gcagaatcaa tcttcaaaaa tgctgagcgt cgtggagacc tggataaagc atacacaaaa
1080
cttatcagag gagtatttgt taatgtggag aaagtagcaa atgaaagcca gaagaccccc
1140
agggatgttg ttatgatgga aaactttcac catatttttg caactctttc tcgattgaaa
1200
atctcatgtc tagaagcaga aaaaaaagaa gccaaacaaa aatacacaga tcaccttcag
1260
tcttatgtca tttactcttt aggcacaact cttgaaaaac taaatcattt ctttgaagg
1320
gttgaagctc gcgtggcaca gggcataagg gaggaggagg taagttacca acttgcat
1380
aacaacaag aacttcgtaa agtcattaag gattccctg gaaaggaagt aaaaaaagg
1440
ctagataacc tctacaagaa agttgataaa catttatgtg aagaagagaa cttacttcag
1500
gtggtgtggc actccatgca agatgaattt atacgcagct ataagcactt tgaagggttg
1560
atagctcgct gttatcctgg atctgggtgtt acaatggaat tcactatttc ggacattctg
1620
gattattgtt ccagcattgc acagtccac taaacctgtg gaaagaagaa aagataactg
1680
aatgaagcat ttgagtataa cagacactat accaaaatac caagcaactg ttttgagaac
1740
ccagacttaa aattttatgt attattaaat gttagataaa tgggtagtac catactacaa
1800
atatttaaat gcaaaattac caacctatat agcagtttta ttgcccata aggttgcata
1860
ctaacttaag cattcatgtc accataaaat gccttaggca tttctcaatg actggatggg
1920
aaattttcct ttattgccta gctgctgtg tttgagtggt tgcctatga gcaatgcatt
1980
tggagttctt cagctttcac tactctctg ttgcttgcta atcatgtaac tactaaaaa
2040
ctgtacaaaa ttgttttttt cacactaaca atgtgtgata tggagaagag ggctcatgtg
2100
atgatcattt gtgaacttag atttttgagg attatgtgac tagtaataaa tgtgaaataa
2160

attttcaaaa aagttgacat ttgaaaaaaa aattagtaac caaataaggc aaatggaaga
 2220
 agtaaaagatc tcaaaaaaaga gtaaagttgg aattcttcca ttgttctgtg aatttgaaga
 2280
 atttgcctgga cttgcagaat caatcttcaa aaatgctgag cgtcgtggag acctggataa
 2340
 agcatacacc aaacttatca gaggagtatt tgtcaatgtg gagaaagtag caaatgaaag
 2400
 ccagaagacc cccagggatg tgggttatgat ggaaaacttt caccatattt ttgcaactc
 2459

<210> 2852

<211> 317

<212> PRT

<213> Homo sapiens

<400> 2852

Met Ile Arg Gln Met Met Ile Lys Ile Phe Arg Cys Ile Glu Pro Glu
 1 5 10 15
 Leu Asn Asn Leu Ile Ala Leu Gly Asp Lys Ile Asp Ser Phe Asn Ser
 20 25 30
 Leu Tyr Met Leu Val Lys Met Ser His His Val Trp Thr Ala Gln Asn
 35 40 45
 Val Asp Pro Ala Ser Phe Leu Ser Thr Thr Leu Gly Asn Val Leu Val
 50 55 60
 Thr Val Lys Arg Asn Phe Asp Lys Cys Ile Ser Asn Gln Ile Arg Gln
 65 70 75 80
 Met Glu Glu Val Lys Ile Ser Lys Lys Ser Lys Val Gly Ile Leu Pro
 85 90 95
 Phe Val Ala Glu Phe Glu Glu Phe Ala Gly Leu Ala Glu Ser Ile Phe
 100 105 110
 Lys Asn Ala Glu Arg Arg Gly Asp Leu Asp Lys Ala Tyr Thr Lys Leu
 115 120 125
 Ile Arg Gly Val Phe Val Asn Val Glu Lys Val Ala Asn Glu Ser Gln
 130 135 140
 Lys Thr Pro Arg Asp Val Val Met Met Glu Asn Phe His His Ile Phe
 145 150 155 160
 Ala Thr Leu Ser Arg Leu Lys Ile Ser Cys Leu Glu Ala Glu Lys Lys
 165 170 175
 Glu Ala Lys Gln Lys Tyr Thr Asp His Leu Gln Ser Tyr Val Ile Tyr
 180 185 190
 Ser Leu Gly Gln Pro Leu Glu Lys Leu Asn His Phe Phe Glu Gly Val
 195 200 205
 Glu Ala Arg Val Ala Gln Gly Ile Arg Glu Glu Glu Val Ser Tyr Gln
 210 215 220
 Leu Ala Phe Asn Lys Gln Glu Leu Arg Lys Val Ile Lys Glu Tyr Pro
 225 230 235 240
 Gly Lys Glu Val Lys Lys Gly Leu Asp Asn Leu Tyr Lys Lys Val Asp
 245 250 255
 Lys His Leu Cys Glu Glu Glu Asn Leu Leu Gln Val Val Trp His Ser
 260 265 270
 Met Gln Asp Glu Phe Ile Arg Gln Tyr Lys His Phe Glu Gly Leu Ile
 275 280 285
 Ala Arg Cys Tyr Pro Gly Ser Gly Val Thr Met Glu Phe Thr Ile Gln

290	295	300
Asp Ile Leu Asp Tyr Cys Ser Ser Ile Ala Gln Ser His		
305	310	315

<210> 2853
 <211> 4993
 <212> DNA
 <213> Homo sapiens

<400> 2853
 cgcgacgag accgggggctg tggcgcgag agaggctgag acggagaaga ggagaggcag
 60
 agaggcgcg gggaccgtca gcagcacctt agctacaatc gttcagctat tctcggaaga
 120
 gagaaggag agggaggagg cgggggcggg agtgggggct gtcaccctcg gaccccgcg
 180
 tgagagggc cgtgcggccg gacgtcctcg ggggtggccc ccagtcgggt gccgaagacc
 240
 tacagctcag gccctgggt cccaaatttc caggctttgc ccctcctect tctcagata
 300
 cccgggtaac agtcctcata gtccagatat ccgggactcg ggtcccaacc tctctaaacc
 360
 tgggtctctg tttcatagat tttcaaatat caggttcagg ccctcgctg caccagtatc
 420
 cggggttcat tccccggcg tttcaaatat cggattcagt ctccatccc ttcagatat
 480
 cggggttcag acccccaaat cagaaatccg gaattcggca gctgtcgccc tcgacgaggg
 540
 ggaggactgg accgcgaggt cagattaggt tgtcaccccc tcccctccag gggaggcttc
 600
 ccgggcccgc cctcaggaa gggcgaaagc cgagggaag gtggcaagg gaaaggcttc
 660
 ctgtccctc tccctgcttg gcagagccgc tggaggaccc caggcggaag cggaggcgct
 720
 ggggcaccat agtgaccctt accaggccag gcccactct cagggccccc aggggccacc
 780
 atgccagctg ggggcggg cgggagcctg aaggaccag atgtggctga gctctcttc
 840
 aaggatgacc cagaaaagct cttctctgac ctccgggaaa ttggccatgg cagctttgga
 900
 gccgtatact ttgccggga tgtccggaat agtgagggtg tggccatcaa gaagatgtcc
 960
 tacagtggga agcagtccaa tgagaaatgg caagacatca tcaaggaggt cgcgttctta
 1020
 cagaagctcc ggcattccaa caccattcag taccggggct gttacctgag ggagcacacg
 1080
 gcttggtctg taatggagta ttgctgggc tcagcttctg accttctaga agtgacacaag
 1140
 aaacccttc agggagtaga gatcgagct gtgacccatg gggcgcttca gggcctggca
 1200
 tatctgcact ccacacacat gatccatagg gatgtgaagg ctggaacat cctgtgttca
 1260
 gagccagggt tagtgaagct aggggacttt ggttctgcgt ccatcatggc acctgccaac
 1320

tccttcgtgg gcaccccata ctggatggca ccgaggtga tcctggccat ggatgagggg
1380
cagtcacgatg gcaaaagtga cgtctggtcc ttggggataa cctgcacoga gctgggtgaa
1440
cggaaccac cgctctttaa catgaatgcg atgagtgcct tataccacat tgcacagaac
1500
gaatcccccg tgctccagtc aggacactgg tctgagtlact tcoggaattt tgtcagactcc
1560
tgtcttcaga aaatccctca agacagacca acctcagagg ttctcctgaa gcaccgcttt
1620
gtgctccggg agcgggccacc cacagtcate atggacctga tcagaggac caaggatgcc
1680
gtcggggagc tggacaacct gcagtaccgc aagatgaaga agatcctgtt ccaagaggca
1740
cccaacggcc ctgggtgccga ggccccagag gaggaagagg aggccgagcc ctacatgcac
1800
cgggccggga ctctgaccag cctcgagagt agccactcag tgcccagcat gtccatcagc
1860
gcctccagcc agagcagctc cgtcaacagc ctagcagatg cctcagacaa cgagggaagag
1920
gaggaggagg aggaggaaga ggaggaggag gaagaaggcc ctgaagcccg ggagatggcc
1980
atgatgcagg agggggagca cacagtcacc tctcacagct ccattatcca ccggtctgcc
2040
ggctctgaca acctatatga tgaccctac cagccagaga taacccccag ccctctccag
2100
ccgctgcag cccagctcc cacttcacc acctctccg cccgcgcgcg ggcctactgc
2160
cgtaacggag accactttgc caccatccga accgcctccc tggtcagccg tcagatccag
2220
gagcatgagc aggactctgc gctgcgggag cagctgagcg gctataagcg gatgcgacga
2280
cagcaccaga agcagctgct ggccctggag tcacggctga ggggtgaacg ggaggagcac
2340
agtgcacggc tgcagcggga gcttgaggcg cagcgggctg gctttggggc agaggcagaa
2400
aagctggccc ggcggcacca ggccataggt gagaaggagg cagcagctgc ccaggccgag
2460
gagcgggaagt tcacgcagca catccttggg cagcagaaga agcagctggc tgcctgtctg
2520
gaggcacaga agcggaccta caaacttcgc aaggacagc tgaaggagga gctccaggag
2580
aaccaccaga ctcccaagcg ggagaaggcc gagtggctgc tgcgagcaga ggagcagctc
2640
cagcagtgcc aggcggagga ggaagcaggg ctgctgcggc gccagcgcca gtactttgag
2700
ctgcagtgtc gccagtacaa gcgcaagatg ttgctggctc gccacagcct ggaccaggac
2760
ctgctgcggg aggcacctgaa caagaagcag acccagaagg acttgagatg tgcactgtcg
2820
cttcggcagc acgaggccac gcgggagctg gagctgcggc agctccaggc cgtgcagcgc
2880
acgcgggctg agctcaccgc cctgcagcac cagacggagc tgggcaacca gctggagtac
2940

aacaagcggc gtgagcaaga gttgcggcag aagcatgcgg ccaggttcg ccagcagccc
3000
aagagcctca aagtacgtgc aggccagcgc ccccccggcc ttccactccc cattctctggg
3060
gctctggggc caccacaacac aggcacccct atagaacagc agccctgctc acctggccag
3120
gaggcagtcc tggaccaaaag aatgcttggc gaggaggagg aagcagttgg agagagaagg
3180
attctgggaa aggaaggggc cactttggag cccaagcagc agaggattct gggggaagaa
3240
tcaggagccc ctagtcccag tccacaaaa catgggagcc tggttgatga ggaagtattg
3300
ggtctgcctg aggagataga ggagcttagg gtgccctccc ttgtacccca ggagaggagc
3360
attgttggcc aggaggaggc tgggacgtgg agcttgtggg ggaaggagga tgagagtctt
3420
ctggatgagg agtttgagct tggctgggtc cagggcccag cactgactcc cgtccctgag
3480
gaggaggaaag aagaggaaaga gggggctccg attgggaccc ctagggatcc tggagatggt
3540
tgtcttccc ccgacatccc tcctgaaccc cctccaacac acctgaggcc ctgccctgcc
3600
agccagctcc ctggactcct gtcccatggc ctccctggcg gcctctcctt tgcagtgggg
3660
tcctctctg gcctcctgcc cctcctgctg ctgctgtgc ttccattgct ggcagcccag
3720
ggtgggggtg gcctgcaggc agcgtctgct gcccttgagg tggggctggt gggctctggg
3780
gcctectacc tgctectttg tacagccctg cacctgccct ccagtctttt cctactctg
3840
gcccagggtg ccgcactggg ggcctcctg ggcctgagct ggcgccagg cctcatgggt
3900
gttcccttg gccttgagc tgcttgctc ttagcttggc caggcctagc tctacctctg
3960
tgggctatgg cagcgggggg cagatgggtg cggcagcagg gcccccggt gcgcggggc
4020
atatctcgac tctggttgcg ggttctgct cgctgtcac ccatggcctt ccgggccctg
4080
cagggtctgt gggctgtggg ggacgggggt ctgtttgcac tgtaccccaa aaccaacaag
4140
gatggcttcc gcagccgcct gcccgctcct gggccccggc ggcgtaatcc ccgcaccacc
4200
caacaccoat tagctctgtt ggcaagggtc tgggtctgtt gcaagggtg gaaactggct
4260
ctggcacggg ccagccaggg tttagcatcc cacttgcctc cgtgggcoat ccacacactg
4320
gccagctggg gcctgtctcg ggggtgaacgg ccacccgaa tcccccggt actaccagc
4380
agccagcgcc agctagggcc cctgcctcc caccagccac tgccagggac tctagccggg
4440
cggagggtcac gcacccgcca gtcccgggcc ctgccccctt ggaggtagct gactccagcc
4500
cttcagccc aaatctagag cattgagcac tttatctccc acgactcagt gaagtctctc
4560

cagtcctag tctctctttt tcacccacct tctcagttt gctcacttac ccaggccca
 4620
 gcccttcgga cctctagaca ggcagcctcc tcagctgtgg agtcacagag tcactctgtg
 4680
 ttctcctggc gctcctcccc taagttattg ctgttcgccc gctgtgtgtg ctcatctca
 4740
 cctcattga ctacggcctg gggccagggg tgggtggaggg tgggaagagt catgtttttt
 4800
 ttctcctctt tgattttgtt ttctgtctc ccttccaacc tgtcccttc cccccaccaa
 4860
 aaaaagaaaa agacaaacac aaataaaata tctgagcgga actgtgaaaa aaaaaaaaaa
 4920
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 4980
 aaaaaaaaaa aaa
 4993

<210> 2854

<211> 1235

<212> PRT

<213> Homo sapiens

<400> 2854

Met	Pro	Ala	Gly	Gly	Arg	Ala	Gly	Ser	Leu	Lys	Asp	Pro	Asp	Val	Ala
1				5					10					15	
Glu	Leu	Phe	Phe	Lys	Asp	Asp	Pro	Glu	Lys	Leu	Phe	Ser	Asp	Leu	Arg
			20					25					30		
Glu	Ile	Gly	His	Gly	Ser	Phe	Gly	Ala	Val	Tyr	Phe	Ala	Arg	Asp	Val
		35					40					45			
Arg	Asn	Ser	Glu	Val	Val	Ala	Ile	Lys	Lys	Met	Ser	Tyr	Ser	Gly	Lys
	50					55					60				
Gln	Ser	Asn	Glu	Lys	Trp	Gln	Asp	Ile	Ile	Lys	Glu	Val	Arg	Phe	Leu
65				70					75					80	
Gln	Lys	Leu	Arg	His	Pro	Asn	Thr	Ile	Gln	Tyr	Arg	Gly	Cys	Tyr	Leu
			85					90					95		
Arg	Glu	His	Thr	Ala	Trp	Leu	Val	Met	Glu	Tyr	Cys	Leu	Gly	Ser	Ala
		100					105					110			
Ser	Asp	Leu	Leu	Glu	Val	His	Lys	Lys	Pro	Leu	Gln	Glu	Val	Glu	Ile
		115				120					125				
Ala	Ala	Val	Thr	His	Gly	Ala	Leu	Gln	Gly	Leu	Ala	Tyr	Leu	His	Ser
		130			135					140					
His	Asn	Met	Ile	His	Arg	Asp	Val	Lys	Ala	Gly	Asn	Ile	Leu	Leu	Ser
145				150					155				160		
Glu	Pro	Gly	Leu	Val	Lys	Leu	Gly	Asp	Phe	Gly	Ser	Ala	Ser	Ile	Met
			165					170					175		
Ala	Pro	Ala	Asn	Ser	Phe	Val	Gly	Thr	Pro	Tyr	Trp	Met	Ala	Pro	Glu
		180					185					190			
Val	Ile	Leu	Ala	Met	Asp	Glu	Gly	Gln	Tyr	Asp	Gly	Lys	Val	Asp	Val
		195				200					205				
Trp	Ser	Leu	Gly	Ile	Thr	Cys	Ile	Glu	Leu	Ala	Glu	Arg	Lys	Pro	Pro
	210				215				220						
Leu	Phe	Asn	Met	Asn	Ala	Met	Ser	Ala	Leu	Tyr	His	Ile	Ala	Gln	Asn
225				230					235				240		
Glu	Ser	Pro	Val	Leu	Gln	Ser	Gly	His	Trp	Ser	Glu	Tyr	Phe	Arg	Asn

		245				250				255		
Phe	Val	Asp	Ser	Cys	Leu	Gln	Lys	Ile	Pro	Gln	Asp	Arg
		260						265			270	
Glu	Val	Leu	Leu	Lys	His	Arg	Phe	Val	Leu	Arg	Glu	Arg
		275					280				285	
Val	Ile	Met	Asp	Leu	Ile	Gln	Arg	Thr	Lys	Asp	Ala	Val
		290				295					300	
Asp	Asn	Leu	Gln	Tyr	Arg	Lys	Met	Lys	Lys	Ile	Leu	Phe
		305				310				315		320
Pro	Asn	Gly	Pro	Gly	Ala	Glu	Ala	Pro	Glu	Glu	Glu	Glu
		325						330				335
Pro	Tyr	Met	His	Arg	Ala	Gly	Thr	Leu	Thr	Ser	Leu	Glu
		340						345			350	Ser
Ser	Val	Pro	Ser	Met	Ser	Ile	Ser	Ala	Ser	Ser	Gln	Ser
		355				360					365	Ser
Asn	Ser	Leu	Ala	Asp	Ala	Ser	Asp	Asn	Glu	Glu	Glu	Glu
		370				375					380	Glu
Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Gly	Pro	Glu	Ala	Arg
		385				390				395		Glu
Met	Met	Gln	Glu	Gly	Glu	His	Thr	Val	Thr	Ser	His	Ser
		405						410				Ser
His	Arg	Leu	Pro	Pro	Gly	Ser	Asp	Asn	Leu	Tyr	Asp	Pro
		420						425				Tyr
Glu	Ile	Thr	Pro	Ser	Pro	Leu	Gln	Pro	Pro	Ala	Ala	Pro
		435				440					445	Ala
Ser	Thr	Thr	Ser	Ser	Ala	Arg	Arg	Arg	Ala	Tyr	Cys	Arg
		450				455					460	Asn
His	Phe	Ala	Thr	Ile	Arg	Thr	Ala	Ser	Leu	Val	Ser	Arg
		465				470				475		Gln
Glu	His	Glu	Gln	Asp	Ser	Ala	Leu	Arg	Glu	Gln	Leu	Ser
		485						490				Gly
Arg	Met	Arg	Arg	Gln	His	Gln	Lys	Gln	Leu	Leu	Ala	Leu
		500						505				Glu
Leu	Arg	Gly	Glu	Arg	Glu	Glu	His	Ser	Ala	Arg	Leu	Gln
		515				520					525	Arg
Glu	Ala	Gln	Arg	Ala	Gly	Phe	Gly	Ala	Glu	Ala	Glu	Lys
		530				535					540	Leu
Arg	His	Gln	Ala	Ile	Gly	Glu	Lys	Glu	Ala	Arg	Ala	Gln
		545				550				555		Ala
Glu	Arg	Lys	Phe	Gln	Gln	His	Ile	Leu	Gly	Gln	Gln	Lys
		565						570				Lys
Ala	Ala	Leu	Leu	Glu	Ala	Gln	Lys	Arg	Thr	Tyr	Lys	Leu
		580						585			590	Glu
Gln	Leu	Lys	Glu	Glu	Leu	Gln	Glu	Asn	Pro	Ser	Thr	Pro
		595				600					605	Lys
Lys	Ala	Glu	Trp	Leu	Leu	Arg	Gln	Lys	Glu	Gln	Leu	Gln
		610				615					620	Cys
Ala	Glu	Glu	Glu	Ala	Gly	Leu	Leu	Arg	Arg	Gln	Arg	Gln
		625				630				635		Tyr
Leu	Gln	Cys	Arg	Gln	Tyr	Lys	Arg	Lys	Met	Leu	Leu	Ala
		645						650				Arg
Leu	Asp	Gln	Asp	Leu	Leu	Arg	Glu	Asp	Leu	Asn	Lys	Lys
		660						665			670	Gln
Lys	Asp	Leu	Glu	Cys	Ala	Leu	Leu	Leu	Arg	Gln	His	Glu
												Ala
												Thr
												Arg

675	680	685
Glu Leu Glu Leu Arg Gln Leu Gln Ala Val Gln Arg Thr Arg Ala Glu		
690	695	700
Leu Thr Arg Leu Gln His Gln Thr Glu Leu Gly Asn Gln Leu Glu Tyr		
705	710	715
Asn Lys Arg Arg Glu Gln Glu Leu Arg Gln Lys His Ala Ala Gln Val		
725	730	735
Arg Gln Gln Pro Lys Ser Leu Lys Val Arg Ala Gly Gln Arg Pro Pro		
740	745	750
Gly Leu Pro Leu Pro Ile Pro Gly Ala Leu Gly Pro Pro Asn Thr Gly		
755	760	765
Thr Pro Ile Glu Gln Gln Pro Cys Ser Pro Gly Gln Glu Ala Val Leu		
770	775	780
Asp Gln Arg Met Leu Gly Glu Glu Glu Ala Val Gly Glu Arg Arg		
785	790	800
Ile Leu Gly Lys Glu Gly Ala Thr Leu Glu Pro Lys Gln Gln Arg Ile		
805	810	815
Leu Gly Glu Glu Ser Gly Ala Pro Ser Pro Ser Pro Gln Lys His Gly		
820	825	830
Ser Leu Val Asp Glu Glu Val Trp Gly Leu Pro Glu Glu Ile Glu Glu		
835	840	845
Leu Arg Val Pro Ser Leu Val Pro Gln Glu Arg Ser Ile Val Gly Gln		
850	855	860
Glu Glu Ala Gly Thr Trp Ser Leu Trp Gly Lys Glu Asp Glu Ser Leu		
865	870	875
Leu Asp Glu Glu Phe Glu Leu Gly Trp Val Gln Gly Pro Ala Leu Thr		
885	890	895
Pro Val Pro Glu Glu Glu Glu Glu Glu Glu Gly Ala Pro Ile Gly		
900	905	910
Thr Pro Arg Asp Pro Gly Asp Gly Cys Pro Ser Pro Asp Ile Pro Pro		
915	920	925
Glu Pro Pro Pro Thr His Leu Arg Pro Cys Pro Ala Ser Gln Leu Pro		
930	935	940
Gly Leu Leu Ser His Gly Leu Leu Ala Gly Leu Ser Phe Ala Val Gly		
945	950	955
Ser Ser Ser Gly Leu Leu Pro Leu Leu Leu Leu Leu Leu Pro Leu		
965	970	975
Leu Ala Ala Gln Gly Gly Gly Leu Gln Ala Ala Leu Leu Ala Leu		
980	985	990
Glu Val Gly Leu Val Gly Leu Gly Ala Ser Tyr Leu Leu Cys Thr		
995	1000	1005
Ala Leu His Leu Pro Ser Ser Leu Phe Leu Leu Leu Ala Gln Gly Thr		
1010	1015	1020
Ala Leu Gly Ala Val Leu Gly Leu Ser Trp Arg Arg Gly Leu Met Gly		
1025	1030	1035
Val Pro Leu Gly Leu Gly Ala Ala Trp Leu Leu Ala Trp Pro Gly Leu		
1045	1050	1055
Ala Leu Pro Leu Val Ala Met Ala Ala Gly Gly Arg Trp Val Arg Gln		
1060	1065	1070
Gln Gly Pro Arg Val Arg Arg Gly Ile Ser Arg Leu Trp Leu Arg Val		
1075	1080	1085
Leu Leu Arg Leu Ser Pro Met Ala Phe Arg Ala Leu Gln Gly Cys Gly		
1090	1095	1100
Ala Val Gly Asp Arg Gly Leu Phe Ala Leu Tyr Pro Lys Thr Asn Lys		

```

1105          1110          1115          1120
Asp Gly Phe Arg Ser Arg Leu Pro Val Pro Gly Pro Arg Arg Arg Asn
          1125          1130          1135
Pro Arg Thr Thr Gln His Pro Leu Ala Leu Leu Ala Arg Val Trp Val
          1140          1145          1150
Leu Cys Lys Gly Trp Asn Trp Arg Leu Ala Arg Ala Ser Gln Gly Leu
          1155          1160          1165
Ala Ser His Leu Pro Pro Trp Ala Ile His Thr Leu Ala Ser Trp Gly
          1170          1175          1180
Leu Leu Arg Gly Glu Arg Pro Thr Arg Ile Pro Arg Leu Leu Pro Arg
          1185          1190          1195          1200
Ser Gln Arg Gln Leu Gly Pro Pro Ala Ser His Gln Pro Leu Pro Gly
          1205          1210          1215
Thr Leu Ala Gly Arg Arg Ser Arg Thr Arg Gln Ser Arg Ala Leu Pro
          1220          1225          1230
Pro Trp Arg
          1235

```

<210> 2855

<211> 1676

<212> DNA

<213> Homo sapiens

<400> 2855

```

ctgaccacat ctcccaactt catggtgctg atcgccacct ccgtggagac ctcagccgcc
60
agtggcagcc ccgaggggagc tagaatgacc acagttcaga ccatcacagg cagtgatccc
120
gaggaagcca tctttgacac cctttgcacc gatgacagct ctgaagaggc aaagacactc
180
acaatggaca tattgacatt ggctcacacc tccacagaag ctaagggcct gtcctcagag
240
agcagcgctt cttecgacgg ccccatccca gtccatccac cgtcacgggc ctcagagagc
300
agcgctctct ccgacggccc ccatccagtc atcaccctcg caggggcctc agagagcagc
360
gcctcttcct acggccccca tccagtcac acccctgcat ggtccccggg atctgatgtc
420
actctctctg ctgaagccct ggtgactgtc acaaacatcg aggttattaa ttgcagcacc
480
acagaaatag aaacaacgac ttccagcacc cctggggcct cagacacaga tctcatcccc
540
acggaagggg tgaaggcctc gtccacctcc gatccaccag ctctgcctga ctcennactg
600
aagcaaaacc acacatcact gaggtcanca gcctctgccg agacctgtc cacagccggc
660
accacagagt cagctgcacc tgatgccacg gttgggaccc cactccccac taacagcacc
720
atagaaagag aagtgcagc acccaggggc acgacctcca gtggagctct ggtcacagtt
780
agcaggaate ccttggaaga aacctcagcc ctctctgttg agacaccaag ttactgcaaa
840
gtctcaggag cagctccggg tcccatagag gctgggtcag cagtgggcaa aacaacttcc
900

```

ttgtctggga gctctgcttc ctctacagc ccctcggaag cgcctctcaa gaacttcacc
 960
 ccttcagaga caccgaccat ggacatcgca accaaggggc ccttccccac cagcagggag
 1020
 cctcttccct ctgtccctcc gactacaacc aacagcagcc gagggacgaa cagcacctta
 1080
 gccaatgata caacctcagc gaagaccacg atgaagcccc caacagccac gccacgact
 1140
 gctcggacga ggccgaccac agacgtgagt gcaggtgaaa atggaggttc ctctcctgc
 1200
 ggctgagtggt ggcttccccg gaagacctca ctgacccccag agtggcagaa aggctgatgc
 1260
 agcagctcca ccgggaactc cagccccacg cgcttcactt ccaggtcttc ttactgcgtg
 1320
 tcaggagagg ctaacggaca tcagctgcag ccaggcatgt ccgtatgcc aaaagagggt
 1380
 gctgccccta gcctgggccc ccaccgacag actgcagctg cgttactgtg ctgagaggta
 1440
 cccagaaggt tcccatgaag ggcagcatgt ccaagccctt gacccccagat gtggcaacag
 1500
 gacctcgcct cacatccacc ggaagtgtatg tgtggggagg ggcttcacct gtcccagag
 1560
 gtgtccttgg actcaccttg gcacatgttc tgtgtttcag taaagagaga cctgatcacc
 1620
 catctgtgtg ctccatcct gcattaaaaa tcactcagtg tggcccagaa aaaaaa
 1676

<210> 2856

<211> 401

<212> PRT

<213> Homo sapiens

<400> 2856

Leu Thr Thr Ser Pro Asn Phe Met Val Leu Ile Ala Thr Ser Val Glu
 1 5 10 15
 Thr Ser Ala Ala Ser Gly Ser Pro Glu Gly Ala Arg Met Thr Thr Val
 20 25 30
 Gln Thr Ile Thr Gly Ser Asp Pro Glu Ala Ile Phe Asp Thr Leu
 35 40 45
 Cys Thr Asp Asp Ser Ser Glu Glu Ala Lys Thr Leu Thr Met Asp Ile
 50 55 60
 Leu Thr Leu Ala His Thr Ser Thr Glu Ala Lys Gly Leu Ser Ser Glu
 65 70 75 80
 Ser Ser Ala Ser Ser Asp Gly Pro His Pro Val Ile Thr Pro Ser Arg
 85 90 95
 Ala Ser Glu Ser Ser Ala Ser Ser Asp Gly Pro His Pro Val Ile Thr
 100 105 110
 Pro Ser Arg Ala Ser Glu Ser Ser Ala Ser Ser Asp Gly Pro His Pro
 115 120 125
 Val Ile Thr Pro Ser Trp Ser Pro Gly Ser Asp Val Thr Leu Leu Ala
 130 135 140
 Glu Ala Leu Val Thr Val Thr Asn Ile Glu Val Ile Asn Cys Ser Ile
 145 150 155 160
 Thr Glu Ile Glu Thr Thr Thr Ser Ser Ile Pro Gly Ala Ser Asp Thr

```

165      170      175
Asp Leu Ile Pro Thr Glu Gly Val Lys Ala Ser Ser Thr Ser Asp Pro
180      185      190
Pro Ala Leu Pro Asp Ser Xaa Leu Lys Gln Asn His Thr Ser Leu Arg
195      200      205
Ser Xaa Ala Ser Ala Glu Thr Leu Ser Thr Ala Gly Thr Thr Glu Ser
210      215      220
Ala Ala Pro Asp Ala Thr Val Gly Thr Pro Leu Pro Thr Asn Ser Thr
225      230      235
Ile Glu Arg Glu Val Thr Ala Pro Arg Ala Thr Thr Leu Ser Gly Ala
245      250      255
Leu Val Thr Val Ser Arg Asn Pro Leu Glu Thr Ser Ala Leu Ser
260      265      270
Val Glu Thr Pro Ser Tyr Val Lys Val Ser Gly Ala Ala Pro Val Ser
275      280      285
Ile Glu Ala Gly Ser Ala Val Gly Lys Thr Thr Ser Phe Ala Gly Ser
290      295      300
Ser Ala Ser Ser Tyr Ser Pro Ser Glu Ala Ala Leu Lys Asn Phe Thr
305      310      315
Pro Ser Glu Thr Pro Thr Met Asp Ile Ala Thr Lys Gly Pro Phe Pro
325      330      335
Thr Ser Arg Asp Pro Leu Pro Ser Val Pro Pro Thr Thr Thr Asn Ser
340      345      350
Ser Arg Gly Thr Asn Ser Thr Leu Ala Lys Ile Thr Thr Ser Ala Lys
355      360      365
Thr Thr Met Lys Pro Pro Thr Ala Thr Pro Thr Thr Ala Arg Thr Arg
370      375      380
Pro Thr Thr Asp Val Ser Ala Gly Glu Asn Gly Gly Ser Ser Ser Cys
385      390      395      400
Gly

```

<210> 2857

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 2857

```

ctggttggga gttggtaggg tcgcaccggg acagcccgga agagttcggt tggggctggg
60
ggctgggcgg gaggaggtga ctcggttttc tgtgtaaac tggccgcggt tgccgcagga
120
aggctagcca gagggtaatt acacaggtgt aggcggcggg ggcgggcgga gggctcgagg
180
ggcgaggggg actggaagag ttggctgcgc ccaggcacca ggtggaagaa ttccatacc
240
agccctgcgg aggtgcctct gtttccagag gcgtttttgt acgaagggca ttttgaaagc
300
gaagcagaag ccgtagaatc agcggcgagc ctgttgaaag aacccacagg tgcatttcac
360
agcactctgg gcgaaaattg gatgtgaaaa tgaagccaga ccgagatact ctgagtgaat
420
atattgaata tgatgcagag gagttcttgg tctctttggc cttgctgata acagaaggac
480

```

gaacacctga atgttctgta aaaggctgaa cagaaagctt tcattgccct ccagcacagt
 540
 ctgtgtacc c agtaactacc aaacatgaat gtagtgacaa gctggccag tgccgccaag
 600
 ccagacgaac taggtctgag gtcacattgt tgtggaagaa taaccttcca atcatggtg
 660
 aatgatgct actaccagac tgctgctaca gcgatgatgg gccaccaca gaggaattg
 720
 atetaatga tctctgagatt aagcaagatg cattattatt agaaagatgg atcttggagc
 780
 cagttcctcg acagaatggt gaccgattta ttgaagagaa gaagcttctg ttggctgtcc
 840
 gctcatattgt gtttttttct cagttaagtg catggctgag tgtttctcat ggtgctatcc
 900
 cagcaaatat tctctacaga atcagtgctg ctgatgtaga cctacagtgg aatttttcac
 960
 agactccaat tgagcatgtg tttcctgttc ccaatgttcc tcacaatgtt gccttgaag
 1020
 tcagtggtca atccctggcc caaacaatct aattatccag ttttgacgtg cagtattcac
 1080
 actaatattg gcctttatga gaaaagaatt caacaacata aacttaaac tcactagcac
 1140
 cataacccaa atgaagcaga acaatgtggt acaaacagtt cacagcgtct gtgtagcaaa
 1200
 caaacttgga ccatggcacc tgaaagtgtg ttacatgcaa aaagtggccc aagtcagaa
 1260
 tatactgcag ctgtcaaaaa tatcaaaacta tatccaggca ctggcagtaa atctgaccat
 1320
 gggacatctc aagccaatat tctaggcttt agtgggtatag gtgatataaa atcacaagaa
 1380
 acatcagtga gaacttttaa atcattttca atggttgatt ccagtatctc taaccgccag
 1440
 agttctggc agtcagctgg tgagactaac cctttaatag gctctttaat tcagagcgg
 1500
 caagaaatca ttgcaagaat tgctcaacat ttgattcatt gtgatccaag cacttcacat
 1560
 gtttctggac gtccatttaa tactcaagag tctagttcac tccattcaaa acctttccgg
 1620
 gtttcacaag aaaatgagaa cgtggggaaa aggttaagaa gctttctc
 1668

<210> 2858

<211> 220

<212> PRT

<213> Homo sapiens

<400> 2858

Met Lys Pro Asp Arg Asp Thr Leu Asp Glu Tyr Phe Glu Tyr Asp Ala
 1 5 10 15
 Glu Glu Phe Leu Val Ser Leu Ala Leu Leu Ile Thr Glu Gly Arg Thr
 20 25 30
 Pro Glu Cys Ser Val Lys Gly Arg Thr Glu Ser Phe His Cys Pro Pro
 35 40 45
 Ala Gln Ser Cys Tyr Pro Val Thr Thr Lys His Glu Cys Ser Asp Lys

50	55	60
Leu Ala Gln Cys Arg Gln Ala Arg Arg Thr Arg Ser Glu Val Thr Leu		
65	70	75
Leu Trp Lys Asn Asn Leu Pro Ile Met Val Glu Met Met Leu Leu Pro		
	85	90
Asp Cys Cys Tyr Ser Asp Asp Gly Pro Thr Thr Glu Gly Ile Asp Leu		
	100	105
Asn Asp Pro Ala Ile Lys Gln Asp Ala Leu Leu Leu Glu Arg Trp Ile		
	115	120
Leu Glu Pro Val Pro Arg Gln Asn Gly Asp Arg Phe Ile Glu Glu Lys		
	130	135
Thr Leu Leu Leu Ala Val Arg Ser Phe Val Phe Phe Ser Gln Leu Ser		
	145	150
Ala Trp Leu Ser Val Ser His Gly Ala Ile Pro Arg Asn Ile Leu Tyr		
	165	170
Arg Ile Ser Ala Ala Asp Val Asp Leu Gln Trp Asn Phe Ser Gln Thr		
	180	185
Pro Ile Glu His Val Phe Pro Val Pro Asn Val Ser His Asn Val Ala		
	195	200
Leu Lys Val Ser Gly Gln Ser Leu Ala Gln Thr Ile		
	210	215
		220

<210> 2859

<211> 1029

<212> DNA

<213> Homo sapiens

<400> 2859

```

ntgcagaagg aaattgcact cgtctcctcc gcgccccggc gacccaacac aatgcaccag
60
ccgcctgagtg ccaccgcccgc gccgcggccgc gctgcagaca ttagcgctag gaagatggcg
120
caccggcga tgttcctcgc aaggggcagc ggtagtggca gcgcctctgc tctcaatgca
180
gcaggtaccg gcgtcggtag taatgccaca tcttcggagg attttccgcc tccgtcgctg
240
cttcagccgc cgccccctgc agcatcttct acgtcggggc cacagcctcc gcctccacaa
300
agcctgaacc tcttttcgca ggctcagctg caggcacagc ctcttgcgcc aggcggaaact
360
caaatgaaaa agaaaagtgg cttccagata actagcggtta ctctgctca gatctccgct
420
agtatcagct ctaacaacag tatagcagag gacactgaga gctatgatga tctggatgaa
480
tctcacacgg aagatctctc ttcttcggag atccttgatg tgtcactttc cagggtact
540
gactatgggg agcccgaaac cagctcctca gaagagaccc taaataactt ccaggaagcc
600
gagacacctg gggcagttct tcccaaccag cccacacctc ctacagcctca tttgcctcac
660
cttcacaaac agaattgttg gatcaatggg aatgctcatc cacaccacct ccatcaccac
720
catcagattc atcatgggca ccacctccaa catggtcacc accatccatc tcatgttgct
780

```

gtggccagtgc catccattac tgggtgggcca cctcaagcc cagtatctag aaaactctct
 840
 acaactggaa gctctgacag tatcacacca gttgcaccaa cttctgctgt atcatccagt
 900
 gggtccacctg catctgtaat gactaatatg cgtgctccaa gtactacagg tggaatagg
 960
 ataaattctg ttactggcac tagtacagta aataatgtta acattactgc tgtgggtagt
 1020
 ttttaattcc
 1029

<210> 2850

<211> 343

<212> PRT

<213> Homo sapiens

<400> 2850

Xaa	Gln	Lys	Glu	Ile	Ala	Leu	Val	Ser	Ser	Ala	Pro	Pro	Gly	Pro	Asn	
1			5					10					15			
Thr	Met	His	Gln	Pro	Pro	Glu	Ser	Thr	Ala	Ala	Ala	Ala	Ala	Ala	Ala	
			20					25					30			
Asp	Ile	Ser	Ala	Arg	Lys	Met	Ala	His	Pro	Ala	Met	Phe	Pro	Arg	Arg	
			35				40					45				
Gly	Ser	Gly	Ser	Gly	Ser	Ala	Ser	Ala	Leu	Asn	Ala	Ala	Gly	Thr	Gly	
			50			55					60					
Val	Gly	Ser	Asn	Ala	Thr	Ser	Ser	Glu	Asp	Phe	Pro	Pro	Pro	Ser	Leu	
65					70				75						80	
Leu	Gln	Pro	Pro	Pro	Pro	Ala	Ala	Ser	Ser	Thr	Ser	Gly	Pro	Gln	Pro	
					85			90						95		
Pro	Pro	Pro	Gln	Ser	Leu	Asn	Leu	Leu	Ser	Gln	Ala	Gln	Leu	Gln	Ala	
			100					105					110			
Gln	Pro	Leu	Ala	Pro	Gly	Gly	Thr	Gln	Met	Lys	Lys	Lys	Ser	Gly	Phe	
			115				120					125				
Gln	Ile	Thr	Ser	Val	Thr	Pro	Ala	Gln	Ile	Ser	Ala	Ser	Ile	Ser	Ser	
			130				135				140					
Asn	Asn	Ser	Ile	Ala	Glu	Asp	Thr	Glu	Ser	Tyr	Asp	Asp	Leu	Asp	Glu	
145					150					155					160	
Ser	His	Thr	Glu	Asp	Leu	Ser	Ser	Ser	Glu	Ile	Leu	Asp	Val	Ser	Leu	
				165					170					175		
Ser	Arg	Ala	Thr	Asp	Leu	Gly	Glu	Pro	Glu	Arg	Ser	Ser	Ser	Glu	Glu	
			180				185						190			
Thr	Leu	Asn	Asn	Phe	Gln	Glu	Ala	Glu	Thr	Pro	Gly	Ala	Val	Ser	Pro	
			195				200					205				
Asn	Gln	Pro	His	Leu	Pro	Gln	Pro	His	Leu	Pro	His	Leu	Pro	Gln	Gln	
			210				215					220				
Asn	Val	Val	Ile	Asn	Gly	Asn	Ala	His	Pro	His	His	Leu	His	His	His	
225					230					235					240	
His	Gln	Ile	His	His	Gly	His	His	Leu	Gln	His	Gly	His	His	His	Pro	
					245				250					255		
Ser	His	Val	Ala	Val	Ala	Ser	Ala	Ser	Ile	Thr	Gly	Gly	Pro	Pro	Ser	
			260					265					270			
Ser	Pro	Val	Ser	Arg	Lys	Leu	Ser	Thr	Thr	Gly	Ser	Ser	Asp	Ser	Ile	
			275				280					285				
Thr	Pro	Val	Ala	Pro	Thr	Ser	Ala	Val	Ser	Ser	Ser	Gly	Ser	Pro	Ala	


```

      290              295              300
Ser Val Met Thr Asn Met Arg Ala Pro Ser Thr Thr Gly Gly Ile Gly
305              310              315              320
Ile Asn Ser Val Thr Gly Thr Ser Thr Val Asn Asn Val Asn Ile Thr
      325              330              335
Ala Val Gly Ser Phe Asn Ser
      340

<210> 2861
<211> 756
<212> DNA
<213> Homo sapiens

<400> 2861
gctagctccta gctctgcacc agcccaagaa accatctgcc tcgacgactc actagatgaa
60
gacctttctt tccattcacc ttactggat cttgtttctg aagcttttagc ggttatcaac
120
aatgggaaca agggccctcc agttggctca aggataagca tgccaaccac aaagcctcgt
180
ccaggactga gagaagaaaa attagcaagt atcatgagta agctgccact agctactccc
240
aaaaaactag attctactca gactacacat tcttcaagtc ttattgtctg tcacacaggg
300
ccagtaccaa agaaacccca ggatttagct catactggca tctcttcagg ccttattgct
360
ggttcttcca ttcagaaccc taaagtctt ttagaacctt tgcagccag gctacttcaa
420
caaggacttc agaggtcaag ccagattcac acttcttctt cttcacagac ccatgtctcc
480
tctttctccc aagcccaaat tctgcctct tctcatgctc tgggaacatc cgaggcccaa
540
gatgcttctt cgtaacaca agtaacaaag gtgcaccagc attcagctgt ccagcagaac
600
tatgtgtctc cattacaggc caccatcagt aaatcccaga ccaaccctgt cgtgaagtta
660
agtaataatc cccaactctc ctgttctctc tcacttatta agacttcaga taagccactt
720
atgtaccgcc ttcccttatc taccctctc acgcgt
756

<210> 2862
<211> 252
<212> PRT
<213> Homo sapiens

<400> 2862
Ala Ser Ser Ser Ser Ala Pro Ala Gln Glu Thr Ile Cys Leu Asp Asp
1      5      10      15
Ser Leu Asp Glu Asp Leu Ser Phe His Ser Pro Ser Leu Asp Leu Val
20      25      30
Ser Glu Ala Leu Ala Val Ile Asn Asn Gly Asn Lys Gly Pro Pro Val
35      40      45
Gly Ser Arg Ile Ser Met Pro Thr Thr Lys Pro Arg Pro Gly Leu Arg

```

50		55		60	
Glu	Glu	Lys	Leu	Ala	Ser
65		70		75	
Lys	Lys	Leu	Asp	Ser	Thr
		85		90	
Gly	His	Thr	Gly	Pro	Val
		100		105	
Gly	Ile	Ser	Ser	Gly	Leu
		115		120	
Val	Ser	Leu	Glu	Pro	Leu
		130		135	
Arg	Ser	Ser	Gln	Ile	His
		145		150	
Ser	Ser	Ser	Gln	Ala	Gln
		165		170	
Ser	Glu	Ala	Gln	Asp	Ala
		180		185	
Gln	His	Ser	Ala	Val	Gln
		195		200	
Ile	Ser	Lys	Ser	Gln	Thr
		210		215	
Gln	Leu	Ser	Cys	Ser	Ser
		225		230	
Met	Tyr	Arg	Leu	Pro	Leu
		245		250	

<210> 2863

<211> 711

<212> DNA

<213> Homo sapiens

<400> 2863

naccgacgtc gaatatccat gcagcgcgct ccgggagctg caccgngctg cgtggaaaga
 60
 gcgcgcgagc gtggcgctcg tgtcgcccc tcctcgctcg gaagaatcgt ttggtctcct
 120
 gccgtgcccg gaatcccagt cagaagtcc agcctgccac tgttctctga tgccatgccca
 180
 gcaccaactc aactgttttt tcctctcacc cgtaactgtg aactgagcag gatctatggc
 240
 actgcatgtt actgccacca caaacatctc tgttgttctc catcgatcat tcctcagagt
 300
 cgactgagat acacacctca tccagcatat gctacacctt gcaggccaaa ggagaactgg
 360
 tggcagtaca cccaaggaag gagatatgct tccacaccac agaaatttta cctcacacct
 420
 ccacaagtca atagcatcct taaagcta atgaatcagtt tcaaagtgc agaatttgac
 480
 ggcaaaaatg tcagttctat ccttggtatt gacagcaatc agctgcctgc aaatgcaccc
 540
 attgaggacc ggagaagtgc agcaacctgc ttgcagacca gagggatgct tttgggggtt
 600
 tttgatggcc atgcagggtg tgcttgttcc caggcagcta gtgaaagact cttttattat
 660

attgctgtct ctttgttacc ccatgagact ttgctagaga ttgaaaatgc a
711

<210> 2864

<211> 237

<212> PRT

<213> Homo sapiens

<400> 2864

Xaa	Arg	Arg	Arg	Ile	Ser	Met	Gln	Arg	Ala	Pro	Gly	Ala	Ala	Arg	Xaa
1				5					10					15	
Cys	Val	Glu	Arg	Ala	Pro	Ser	Gly	Gly	Val	Val	Val	Ala	Pro	Ser	Ser
			20					25					30		
Ser	Gly	Arg	Ile	Val	Trp	Ser	Pro	Ala	Val	Pro	Gly	Ile	Pro	Val	Arg
		35				40					45				
Ser	Ser	Ser	Leu	Pro	Leu	Phe	Ser	Asp	Ala	Met	Pro	Ala	Pro	Thr	Gln
		50				55					60				
Leu	Phe	Phe	Pro	Leu	Ile	Arg	Asn	Cys	Glu	Leu	Ser	Arg	Ile	Tyr	Gly
65				70					75					80	
Thr	Ala	Cys	Tyr	Cys	His	His	Lys	His	Leu	Cys	Cys	Ser	Ser	Ser	Tyr
				85					90					95	
Ile	Pro	Gln	Ser	Arg	Leu	Arg	Tyr	Thr	Pro	His	Pro	Ala	Tyr	Ala	Thr
		100						105					110		
Phe	Cys	Arg	Pro	Lys	Glu	Asn	Trp	Trp	Gln	Tyr	Thr	Gln	Gly	Arg	Arg
		115				120						125			
Tyr	Ala	Ser	Thr	Pro	Gln	Lys	Phe	Tyr	Leu	Thr	Pro	Pro	Gln	Val	Asn
		130				135					140				
Ser	Ile	Leu	Lys	Ala	Asn	Glu	Tyr	Ser	Phe	Lys	Val	Pro	Glu	Phe	Asp
145				150						155				160	
Gly	Lys	Asn	Val	Ser	Ser	Ile	Leu	Gly	Phe	Asp	Ser	Asn	Gln	Leu	Pro
			165					170						175	
Ala	Asn	Ala	Pro	Ile	Glu	Asp	Arg	Arg	Ser	Ala	Ala	Thr	Cys	Leu	Gln
		180						185					190		
Thr	Arg	Gly	Met	Leu	Leu	Gly	Val	Phe	Asp	Gly	His	Ala	Gly	Cys	Ala
		195				200						205			
Cys	Ser	Gln	Ala	Val	Ser	Glu	Arg	Leu	Phe	Tyr	Tyr	Ile	Ala	Val	Ser
		210				215					220				
Leu	Leu	Pro	His	Glu	Thr	Leu	Leu	Glu	Ile	Glu	Asn	Ala			
225					230					235					

<210> 2865

<211> 585

<212> DNA

<213> Homo sapiens

<400> 2865

nggatecttc caaggatccc aggttaaccgc cacagtttgg aatagagatg ttaggagaga
60
agaagttagta gaagacaaag acagtctctt aaattcttga gaagtatgag ctctgtgtat
120
ctgcagtgta aagttttgat atgtgatagc agtgaccacc agtctcgctg caatcaaggt
180
tgtgtctcca gaagcaaacy agacatttct tcataataat ggaacacaga ttccatcata
240

ggacccattc gtctgaaaag ggaatcgaagt gcaagtggca attcaggatt tcagcatgaa
 300
 acacatgcgg aagaactcc aaaccagcct ttcaacagtg tgcattctgtt ttcttctatg
 360
 gttctagctc tgaatgtggt gactgtagcg acaatcacag tgaggcattt tghtaaatcaa
 420
 cgggcagact acaaatacca gaagctgcag aactattaac taacaggctcc aaccctaagt
 480
 gagacatggt ttctccaggat gccaaaggaa atgctacctc gtggctacac atattatgaa
 540
 taaatgagga agggcctgaa agtggcacac aggcctgcaa aaaaa
 585

<210> 2866

<211> 134

<212> PRT

<213> Homo sapiens

<400> 2866

Glu	Arg	Arg	Ser	Ser	Arg	Arg	Gln	Arg	Gln	Phe	Phe	Lys	Phe	Leu	Arg
1			5				10					15			
Ser	Met	Ser	Ser	Val	Tyr	Leu	Gln	Cys	Lys	Val	Leu	Ile	Cys	Asp	Ser
			20				25					30			
Ser	Asp	His	Gln	Ser	Arg	Cys	Asn	Gln	Gly	Cys	Val	Ser	Arg	Ser	Lys
			35				40					45			
Arg	Asp	Ile	Ser	Ser	Tyr	Lys	Trp	Lys	Thr	Asp	Ser	Ile	Ile	Gly	Pro
			50			55					60				
Ile	Arg	Leu	Lys	Arg	Asp	Arg	Ser	Ala	Ser	Gly	Asn	Ser	Gly	Phe	Gln
			65			70				75				80	
His	Glu	Thr	His	Ala	Glu	Glu	Thr	Pro	Asn	Gln	Pro	Phe	Asn	Ser	Val
			85						90				95		
His	Leu	Phe	Ser	Phe	Met	Val	Leu	Ala	Leu	Asn	Val	Val	Thr	Val	Ala
			100				105						110		
Thr	Ile	Thr	Val	Arg	His	Phe	Val	Asn	Gln	Arg	Ala	Asp	Tyr	Lys	Tyr
			115				120					125			
Gln	Lys	Leu	Gln	Asn	Tyr										
			130												

<210> 2867

<211> 444

<212> DNA

<213> Homo sapiens

<400> 2867

atgctgttca gcctcaagta cctgggcatg acgctagtgg agcagcccaa ggggtgaggag
 60
 ctgtcggccg ccgccatcaa gaggatcgtg gctacagcta aggccagtgg gaagaagctg
 120
 cagaagggtga ctctgaaggt gtcgccacgg ggaattatcc ttcattccagg ccattcatcca
 180
 gctccagac aacctgctg ccactcaagg cttgtggccg cggcacctcg tccattgttg
 240
 tgggtgtggc gctgaccgtg gacagcgggg ccttagccgt ctctcttaag tccagcagg
 300

tcccagtggc gaccaagctc ttcaaggggg ggggtgcagtc ttggcggggc cccaggacgt
 360
 cccctccctc ttggctggct ttgtccctct tctctttctc ttccctggac acctgccaaa
 420
 actcaaaggc gactttgaag gcct
 444

<210> 2868

<211> 84

<212> PRT

<213> Homo sapiens

<400> 2868

Met	Leu	Phe	Ser	Leu	Lys	Tyr	Leu	Gly	Met	Thr	Leu	Val	Glu	Gln	Pro
1			5					10					15		
Lys	Gly	Glu	Glu	Leu	Ser	Ala	Ala	Ile	Lys	Arg	Ile	Val	Ala	Thr	
		20					25				30				
Ala	Lys	Ala	Ser	Gly	Lys	Lys	Leu	Gln	Lys	Val	Thr	Leu	Lys	Val	Ser
		35				40					45				
Pro	Arg	Gly	Ile	Ile	Leu	His	Pro	Gly	His	His	Pro	Ala	Pro	Arg	Gln
	50				55				60						
His	Cys	Cys	His	Ser	Arg	Leu	Val	Ala	Ala	Ala	Pro	Arg	Pro	Cys	Trp
65				70				75					80		
Trp	Cys	Trp	Arg												

<210> 2869

<211> 5811

<212> DNA

<213> Homo sapiens

<400> 2869

ntcacatcac catgacaacc ccttgccctt tctccattcc tacagcccaa ctatggaaaac
 60
 cagcaatatg gaccaaacag ccagttcccc acccagccag gccagtaccc tacccccaac
 120
 cccccaaggc cactcacctc ccccaactac ccaggacaaa ggatgccccag ccaaccacagc
 180
 tccggacagt acccaccccc cacagtcaac atggggcagt attacaagcc agaacagttt
 240
 aatggacaaa ataacacgtt ctcggaagc agctacagta actacagcca agggaatgtc
 300
 aacaggcctc ccaggccggt tcctgtggca aattaccccc actcacctgt tccagggaac
 360
 cccacacccc ccatgacccc tgggagcagc atccctccat acctgtcccc cagccaagac
 420
 gtcaaaccac ccttcccgcc tgacatcaag ccaaatatga gcgctctgcc accaccccac
 480
 gccaaccaca atgacgagct gcggtctcac ttccctgtgc gggatggcgt ggtctggag
 540
 cccttccgcc tggagacaaa cctggctgta agcaaccatg tgttcagct gcgagactca
 600
 gtctacaaga ccttgataat gaggcctgac ctggagctgc aattcaagtg ctaccaccac
 660

gaggaccggc agatgaacac caactggccc gcctcggtgc aggtcagcgt gaacgccacg
720
cgcttcacca tcgagcggcg cgacaacaag acctcccaca agcccctgca cctgaagcac
780
gtgtgccagc caggccgcaa caccatccag atcacctgca cggcctgctg ctgtcccccac
840
ctcttcgtgc tgcagctagt gcaccggccc tcctccgct ctgtgtgca aggactctc
900
aagaagcgcc tcctgcccg cagagcactgt atcacgaaaa tcaagcggaa ttctcagcagc
960
gtggctgcct cctcgggcaa cagaccctc aacggggagg atggggtgga gcagacggcc
1020
atcaaggtgt ctctgaagtgc ccccatcaca ttcggcgca tccagctgcc tgcctcaggga
1080
cacgattgca agcatgtgca gtgctttgat ctggagtcac acctgcagct gaattgcgag
1140
agagggaacct ggagggtgcc tgtgtgcaat aaaaccgctc tgcctggagg cctggagggtg
1200
gatcagtaca tgtggggaat cctgaatgcc atccaacact ccgagtttga agaggtcacc
1260
atcgatccca cgtgcagctg gcggccgggtg cccatcaagt cggacttaca catcaaggat
1320
gacctgatg gcacccctc caagcggttc aagaccatga gtcccagcca gatgatcatg
1380
cccaatgtca tggagatgat cgcagccctg ggccccggcg cgtcccccta tccccctccg
1440
ctccccccag ggggcaccaa ctccaacgac tacagcagc aaggcaacaa ctaccaaggc
1500
catggcaact ttgacttccc ccacgggaac cctggaggga catccatgaa tgacttcatg
1560
cacggggcccc ccagctctc ccacccccg gacatgcccc acaacatggc gcgcctcag
1620
aaacccctca gccacccat gcaggaaact atgccacacg ctggcagctc tgaccagccc
1680
caccctccca tacaacaagg tttgcacgta ccacaccccc gcagccagtc agggcctcca
1740
ttacatcaca gtggggctcc tcctcctcct ccttcccagc ctccccggca gccgccacag
1800
gcccttccca gcagccatcc acacagcgac ctgaccttta accctcctc agccttagag
1860
ggtcaggccg gacgcaggg agcgtccgac atgcggagc cttcgtgga tctccttccc
1920
gaactcacia atcctgacga gctcctgtct tatctggacc ccccgacct gccagcaat
1980
agttaacgatg acctcctgtc tctatttgag aacaactgag ggccaccgg tcggggccat
2040
ccctccacac tctgcatcct accccacctc cccaacacac ttttccacct gggagcctgt
2100
gccctcagac gcgccccgac cagagccacg ggctgtgggg cggggagccc tcccccgctg
2160
cagccctctc agaacagagg ggtagggagg gtgcaccagt gcaccaggaa ggctgtgtgg
2220
gtctggagcc cagctccac ctccacacce ttggcttggg cccatgcca gcgcaggcct
2280

gaagaccacc ctcccagagag gaaccagccc ggtaagaggg cacacgtga tgcggttcc
2340
cggtccctcc gcgtgtgcgc attccagatg accttccagt gtccccaagg ttcttccatc
2400
ttctagactg taacctgtcc tccctgttcc ctgggtccaga gcttccctcc agtgactgtg
2460
gagctgaga agggccccgg gccccagcat gggccccgag ccttggagga gcactggcag
2520
ttgggtggcag tgagaccagc ccaccacca ccaccacca cagaaaagca caaacctctg
2580
ggaaagacaa cgtctctcgg gggccagggg tcactcgggtt gacccttgac ctataagcca
2640
agatacccca taaacacact cagaaagcag agaaaaagga caagagtctg tgtttgagag
2700
ggggtctgcc attctgtctt ggggactggg ggggaagagg gccaggacat cttctgagcc
2760
aggacgtccc tgaggctcca cctccaagct cagacagggc ccaggcttgg ggaacagaga
2820
gagcaggtgt acaccaacc aaagtgatg tgcccttggg tggggggcgc gggcatataa
2880
cctgtcagaa gcaaacagga gcggcaactt ctaactttgc tccaagccac tctcttttta
2940
aacagcaaca atttaaagct atgaagtca ctagagaaaa ggaacgttgc tcttgacag
3000
caagcaaac atttctctcc gtctgttctg tttttctcct agtccctctc ctgccacctc
3060
tccaagaact ccgtgggaca cccacttccc tctgtctag ttctctttgt ccaactagat
3120
ggcaagggca gtgcgtggaa aggcggggga ggtgcagaaa ccagagccca gggcaatggg
3180
gtctgtccag cccctccctc tgctccctgt ctccaagctg ccccggctg cagccagggc
3240
catggacatg tgcaccagta tgtacctgca ggcattgggg ggaggggggc glgtttctgg
3300
gcttgcacca gacactgccc ttgggtgcca gcctacctg cctgcactcc tccaccatca
3360
caatctcacc caaactcctg ctcaactcaag caaaagcagc ctctggcctt cctccaccg
3420
ctttgtccca tctggtttac cactctccag ggcctcctgg ggagcctgtc ctgtgtttac
3480
ttgttttcag gctggtctgt gcccggtgag ccacatggcc taggggtgat ccaggttgtc
3540
cgtgactgg ggtcccatct gtaaatctt tgccgcttcc ccggctgtct cctggggccc
3600
ttctctgtc tcccgctcgc tgtgggtggg ccccgagcact cctctgtggg ttttaaccga
3660
aagggtggcc cagctgttga cttccagtca ctgtcccaaga cggcacaagg ttttctgtag
3720
gaaagctgcc attgccccgg ccccttttct tcctttgtcc cgttgtcgag gttttttcaa
3780
atagctgtgt gttcagtatg caaatcaatt attttaagaa tcgcttttgt aaatatcttt
3840
gtgaatatt tagtatctc tttgataata ttaacattt tcatgacctg gttatagcct
3900

ttgctgtgtgt tttttaaata cctggactca atgacaaaga cagagcttct ttttttttaa
3960
acaaaacaaa aaaaagcaac cagggctatt tgtacagttg aaggggtgaa cagaatgggc
4020
ggctgtgctg ggagttggaa gaccgggcag ccgctatttt agagccatcc ctacgtcagc
4080
tggcagggac aagccaacgc caggtagcat gtgccacccc ttgccagtgt tctgtggcct
4140
ggcaagtggc cagccctctgt gtcagacccat ctgggaatta agctccagac agacttacag
4200
atgcccttct taggagttct tgcttcttgc gttgatactt tgccccagaa aggcctggga
4260
ttcatctctg tttttatcag ggtgtgtcca cactctgctc acaggtggat ccacggcttt
4320
ccagtgcgga gagtcgagat gctccctgca gcccaggccc cgggcacctc ctgcaacccat
4380
ctctgggctc agcacctgag gcgggtttcc tgggtccccct ctccagcaag cctccaccag
4440
caagctcggc ccagagcttc ccttccggct ggctctgaac cgtgcgtggg gcctacagcc
4500
tgccagtctg agacaagctc ttccggagtg ctctgggagc caggccagggt gtgtaggagg
4560
gtgcagaggc atccggggcg ggagcaagcc ccaggttgtg acaggtgcag gttagacaacg
4620
cccataaaca gagatggtcc tgaactctg agagatcctt cctgtatcct ttccgacgac
4680
tacttggagc cataagtaac ctccagcaaaa acgaggcctc tgcaagccac ttttccatgc
4740
caagcatcca cccggccccc aggcattgtt ctgcgcgcac tccgcaagat ggacagggag
4800
ccagcaggca ggccgggaagg gcccaagtaca ggcaatcacc cccatcttct tggtttgaag
4860
ctttatccat gtatcatgtt ccgtgtagcc attttatttt ttaagaaact gctaatactt
4920
tctccctaag ggaagccctg atccccccaga gagctacagg tctgctcccc acgggcctcg
4980
ggcctgaccc gtccacacag ggccgtgtca acagcagcga ctcaagggag gtgtgtacat
5040
atgtaaatga gaaatagaga cgtgtcaaca gatgcattca tttctcttgg aatgtgtatt
5100
gttttttatt tgcgaaacaa aacaaaacaa aaaaaaaagc ttggaactcc atcacgtgga
5160
aaaactagat cctgttggtt atagcatttg tgagttctcc acgtctgtct ctctcgctca
5220
tgtaatatat tctgaccctg agtggaaaagg ggtttttgtt ctgtttttat ttacactaca
5280
tgtactattt agcttccagt tactagtcct gccacctgtg tatttttagg gtgctatgga
5340
aataatgaaa agaaacgggg atttcagaag aaattgttaa ccaaatcatc actttgtata
5400
atttttgata tcatgatcac aggtgattca cagctacaca cataaacaca ccacccagtg
5460
cagcctgaag taactccac agaaaccatc atcgtcttgg tacatcgat gtacaatgca
5520

atcatttcat actttaaaact ggtcaaaaaa ctaattgtga ttcttagtct tgcaagctg
 5580
 tatgtagtta gatgatgtga caacctctaa tatttatcta ataaatatgt attcagatga
 5640
 aacctgtata ttaggtgttc atgtggttat ttgttatata aagatcaaat tatttgacta
 5700
 ttgctagaca ttctataact ctgttgtaac actgaggtat ctcatgtgcc catgttaatt
 5760
 ttttctaaa taaattgaca aaacaaaaaa aaaaaaaaaa aagggcggcc g
 5811

<210> 2870

<211> 258

<212> PRT

<213> Homo sapiens

<400> 2870

Glu	Phe	Glu	Glu	Val	Thr	Ile	Asp	Pro	Thr	Cys	Ser	Trp	Arg	Pro	Val
1			5					10					15		
Pro	Ile	Lys	Ser	Asp	Leu	His	Ile	Lys	Asp	Asp	Pro	Asp	Gly	Ile	Pro
		20						25					30		
Ser	Lys	Arg	Phe	Lys	Thr	Met	Ser	Pro	Ser	Gln	Met	Ile	Met	Pro	Asn
		35				40					45				
Val	Met	Glu	Met	Ile	Ala	Ala	Leu	Gly	Pro	Gly	Pro	Ser	Pro	Tyr	Pro
	50				55				60						
Leu	Pro	Pro	Pro	Pro	Gly	Gly	Thr	Asn	Ser	Asn	Asp	Tyr	Ser	Ser	Gln
65				70				75						80	
Gly	Asn	Asn	Tyr	Gln	Gly	His	Gly	Asn	Phe	Asp	Phe	Pro	His	Gly	Asn
		85						90						95	
Pro	Gly	Gly	Thr	Ser	Met	Asn	Asp	Phe	Met	His	Gly	Pro	Pro	Gln	Leu
		100						105					110		
Ser	His	Pro	Pro	Asp	Met	Pro	Asn	Asn	Met	Ala	Ala	Leu	Glu	Lys	Pro
	115					120						125			
Leu	Ser	His	Pro	Met	Gln	Glu	Thr	Met	Pro	His	Ala	Gly	Ser	Ser	Asp
	130				135						140				
Gln	Pro	His	Pro	Ser	Ile	Gln	Gln	Gly	Leu	His	Val	Pro	His	Pro	Ser
	145			150				155						160	
Ser	Gln	Ser	Gly	Pro	Pro	Pro	Leu	His	His	Ser	Gly	Ala	Pro	Pro	Pro
		165						170					175		
Pro	Ser	Gln	Pro	Pro	Arg	Gln	Pro	Pro	Gln	Ala	Ala	Pro	Ser	Ser	His
	180					185						190			
Pro	His	Ser	Asp	Leu	Thr	Phe	Asn	Pro	Ser	Ser	Ala	Leu	Glu	Gly	Gln
	195					200					205				
Ala	Gly	Ala	Gln	Gly	Ala	Ser	Asp	Met	Pro	Glu	Pro	Ser	Leu	Asp	Leu
	210				215					220					
Leu	Pro	Glu	Leu	Thr	Asn	Pro	Asp	Glu	Leu	Leu	Ser	Tyr	Leu	Asp	Pro
225			230					235					240		
Pro	Asp	Leu	Pro	Ser	Asn	Ser	Asn	Asp	Asp	Leu	Leu	Ser	Leu	Phe	Glu
		245						250					255		

Asn Asn

<210> 2871

<211> 786

<212> DNA

<213> Homo sapiens

<400> 2871

ggtaccatga cccgttgacg ccacacagcag tctccctatc agcttctgtt tggggaaccc
 50
 tacatctttg aagaacttct gggcttgaag atccgcacatc ctccagatgc ctttttccag
 120
 attaacactg ctggtgcaga gatgctgtat tggactgtag gggagctgac tggagtgaac
 180
 tctgacacca tcttcttga catctgctgt ggaactgggtg tgattggcct cctctgggt
 240
 cagcatacat ctcggttcct tgggattgaa ttgttggagc aggcagtggg ggatgcaaga
 300 ccttcaatgg catcaccaac tctgaatttc atactggtca agcagagaag 360
 attttgccag ggctgctaaa gtcaaaggaa gatggacagt caattgttgc tgtggtgaac
 420
 ccagcccggtg ccggactgcg taaggatgaa cagctatttt gatgttccca gtattgtcca
 480
 tcaacttttg ttcttctttt ccacaccatg ctacgggtgc tcccagtggtg ctggctctga
 540
 acctgtttcc cctctatttc taatcaatcc tgagttctgg tcagttggaa gttttgtgata
 600
 acagagacca tggtagttaa ttataactaat agcaagggtg ttcttccctc agattacaag
 660
 gtgattcaag ccattcgaaa cttcaggggc atccacacgc tagtttttgt tctctgcaag
 720
 ctccatgggtg aatccactag gaatgtcatt gagctgtgct gtccctccaga cctctgcctg
 780
 gcgcgc
 786

<210> 2872

<211> 153

<212> PRT

<213> Homo sapiens

<400> 2872

Gly	Thr	Met	Thr	Arg	Cys	Ser	His	Gln	Gln	Ser	Pro	Tyr	Gln	Leu	Leu
1				5				10					15		
Phe	Gly	Glu	Pro	Tyr	Ile	Phe	Glu	Glu	Leu	Leu	Gly	Leu	Lys	Ile	Arg
			20					25					30		
Ile	Ser	Pro	Asp	Ala	Phe	Phe	Gln	Ile	Asn	Thr	Ala	Gly	Ala	Glu	Met
			35				40					45			
Leu	Tyr	Trp	Thr	Val	Gly	Glu	Leu	Thr	Gly	Val	Asn	Ser	Asp	Thr	Ile
	50				55					60					
Leu	Leu	Asp	Ile	Cys	Cys	Gly	Thr	Gly	Val	Ile	Gly	Leu	Pro	Leu	Ala
	65			70				75						80	
Gln	His	Thr	Ser	Arg	Val	Leu	Gly	Ile	Glu	Leu	Leu	Glu	Gln	Ala	Val
				85				90					95		
Glu	Asp	Ala	Arg	Trp	Thr	Ala	Ala	Phe	Asn	Gly	Ile	Thr	Asn	Ser	Glu
			100				105					110			
Phe	His	Thr	Gly	Gln	Ala	Glu	Lys	Ile	Leu	Pro	Gly	Leu	Leu	Lys	Ser
	115					120						125			
Lys	Glu	Asp	Gly	Gln	Ser	Ile	Val	Ala	Val	Val	Asn	Pro	Ala	Arg	Ala

135
140

Gly Leu Arg Lys Asp Glu Gln Leu Phe

145

150

<210> 2873
<211> 1187
<212> DNA
<213> Homo sapiens

<400> 2873

ncggaactgga tcggccagag ttactccgag gtgatgagcc tcaacgagca ctccatcgag
60
cgctgtctct ggcgcaagct ctaacttgag cgcgccaaagc ttaaagcctc cagccggacc
120
tcgctctcgc tctccggctt cgccatgggt gcaatggtgg aggtgcagct ggacgtgtac
180
cagactace caccggggct gctcatcgcc ttcagtgcct gcaccacagt gctggtggtc
240
ggcgacactgt ttgcgtctat gatcagcacc tgcatectgc ccaacatcga ggcgggtgagc
300
aactgcacaa tctcaactcg gaaggagctc ccccatgagc gcattgcacgc ccacatcgag
360
ctggcctggg ccttctccac cgtcatcggc acgtctctct tctatagctg ggtgggtgctg
420
ctctgtctgg tcaagtctct gccctcctcaag aagcagccag gccagccaag gccaccagc
480
aagccccccg ccagtggcgc agcagccaac gtcagcacca gcggcatcac cccggggccag
540
gcagctgcca tcgcctcgac caccatcatg gtgcctctcg gccctgatctt tatcgtcttc
600
gccgtcact tctaccgctc actgggttagc cataagactg accgcacagt ccaggagctc
660
aacgagctgg cggagtttgc ccgcttacag gaccagctgg accacagagg ggaccacccc
720
ctgcagcccc gcagccaacta tgcctaggcc catgtgtgtct gggcccttcc agtgctttgg
780
ctctaacgcc tcccccttga ccttgtcctg cccagcctc acggacagcc tgcgcagggg
840
gtcgggcttc agcaaggggc agagcgtgga ggggaagagga tttttataag agaaaattct
900
gcactttgaa actgtctctc aagagaataa gcatttccct tctctccage tccaggtcca
960
ctctcctgtg ggaggcgggt gggggccaaa gtggggccac acactcgctg tgtccccctc
1020
ctctccctgt gccagtgcca cctgggtgcc tctctctgtc ctgtccgtct caacctctct
1080
ccgctccagc attgagtgtg tacatgtgtg tgtgacacat aaatatactc ataaggacac
1140
ctccaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa
1187

<210> 2874
<211> 248
<212> PRT

<213> Homo sapiens

<400> 2874

```

Xaa Asp Trp Ile Gly Gln Ser Tyr Ser Glu Val Met Ser Leu Asn Glu
 1           5           10           15
His Ser Met Gln Ala Leu Ser Trp Arg Lys Leu Tyr Leu Ser Arg Ala
 20           25           30
Lys Leu Lys Ala Ser Ser Arg Thr Ser Ala Leu Leu Ser Gly Phe Ala
 35           40           45
Met Val Ala Met Val Glu Val Gln Leu Asp Ala Asp His Asp Tyr Pro
 50           55           60
Pro Gly Leu Leu Ile Ala Phe Ser Ala Cys Thr Thr Val Leu Val Ala
 65           70           75           80
Gly His Leu Phe Ala Leu Met Ile Ser Thr Cys Ile Leu Pro Asn Ile
 85           90           95
Glu Ala Val Ser Asn Cys Thr Ile Ser Thr Arg Lys Glu Ser Pro His
100           105           110
Glu Arg Met His Arg His Ile Glu Leu Ala Trp Ala Phe Ser Thr Val
115           120           125
Ile Gly Thr Leu Leu Phe Leu Ala Glu Val Val Leu Leu Cys Trp Val
130           135           140
Lys Phe Leu Pro Leu Lys Lys Gln Pro Gly Gln Pro Arg Pro Thr Ser
145           150           155           160
Lys Pro Pro Ala Ser Gly Ala Ala Ala Asn Val Ser Thr Ser Gly Ile
165           170           175           180
Thr Pro Gly Gln Ala Ala Ala Ile Ala Ser Thr Thr Ile Met Val Pro
185
Phe Gly Leu Ile Phe Ile Val Phe Ala Val His Phe Tyr Arg Ser Leu
195           200           205
Val Ser His Lys Thr Asp Arg Gln Phe Gln Glu Leu Asn Glu Leu Ala
210           215           220
Glu Phe Ala Arg Leu Gln Asp Gln Leu Asp His Arg Gly Asp His Pro
225           230           235           240
Leu Thr Pro Gly Ser His Tyr Ala
245

```

<210> 2875

<211> 593

<212> DNA

<213> Homo sapiens

<400> 2875

```

nntccagcct ctctccgacc gcgtcggact ggtctgtctg agggagatgg tgacaagctc
60
aaggcctgcg aggtctcaaa aaataaagat ggaagaagaac aaagtgaac tgtatcactg
120
tctgaagatg aaacattctc ctggccaggt cccaaaacag ttacgttgaa aagaacatct
180
caaggctttg gttttacatt aagacatttt attgtttatc cccagagtc tgcaattcaa
240
ttttcatata aggatgaaga aaatggaac agaggaggaa aacaagaaa ccgcttggaa
300
ccaatggata ccatatttgt taagcaagtt aaagaaggag gacctgcttt tgaagctgga
360

```

ttatgtacag gtgaccgaat tataaaagtc aatggagaaa gtgtatttgg caaacctat
 420
 tcccaagtaa ttgctttaat tcaaaacagt gatacaacat tggaacttag tggttatgcca
 480
 aaagatgaag acattctcca agtggtaagt ttattttatt catatatgag ttgttttaca
 540
 gtcatgaatg ttcgaaaaat atttttgaga tggaagtatt aaagatggaa ttc
 593

<210> 2876

<211> 193

<212> PRT

<213> Homo sapiens

<400> 2876

Xaa	Pro	Ala	Ser	Leu	Arg	Pro	Arg	Arg	Thr	Gly	Leu	Ser	Glu	Gly	Asp
1				5					10				15		
Gly	Asp	Lys	Leu	Lys	Ala	Cys	Glu	Val	Ser	Lys	Asn	Lys	Asp	Gly	Lys
		20					25					30			
Glu	Gln	Ser	Glu	Thr	Val	Ser	Leu	Ser	Glu	Asp	Glu	Thr	Phe	Ser	Trp
		35					40				45				
Pro	Gly	Pro	Lys	Thr	Val	Thr	Leu	Lys	Arg	Thr	Ser	Gln	Gly	Phe	Gly
	50					55				60					
Phe	Thr	Leu	Arg	His	Phe	Ile	Val	Tyr	Pro	Pro	Glu	Ser	Ala	Ile	Gln
	65				70				75					80	
Phe	Ser	Tyr	Lys	Asp	Glu	Glu	Asn	Gly	Asn	Arg	Gly	Gly	Lys	Gln	Arg
			85					90					95		
Asn	Arg	Leu	Glu	Pro	Met	Asp	Thr	Ile	Phe	Val	Lys	Gln	Val	Lys	Glu
			100					105				110			
Gly	Gly	Pro	Ala	Phe	Glu	Ala	Gly	Leu	Cys	Thr	Gly	Asp	Arg	Ile	Ile
		115				120					125				
Lys	Val	Asn	Gly	Glu	Ser	Val	Ile	Gly	Lys	Thr	Tyr	Ser	Gln	Val	Ile
	130					135					140				
Ala	Leu	Ile	Gln	Asn	Ser	Asp	Thr	Thr	Leu	Glu	Leu	Ser	Val	Met	Pro
	145				150					155				160	
Lys	Asp	Glu	Asp	Ile	Leu	Gln	Val	Val	Ser	Phe	Ile	Tyr	Ser	Tyr	Met
			165					170					175		
Ser	Cys	Phe	Thr	Val	Met	Asn	Val	Arg	Lys	Ile	Phe	Leu	Arg	Trp	Lys
			180					185					190		

Tyr

<210> 2877

<211> 1921

<212> DNA

<213> Homo sapiens

<400> 2877

ngctgatgct gccgtgcggt acttgtcatg gagctggcac tgcggcgctc tcccgccccg
 60
 cgggtgggtgc tgctgctgcc gctgctgctg ggcctgaacg caggagctgt cattgactgg
 120
 cccacagagg agggcaagga agtatgggat tatgtgacgg tccgcaagga tgcctacatg
 180

ttctggtggc tctattatgc caccactcct gcaagaactt cagaactgcc cctggtcatg
240
tggcttcagg cgggtccagg cggttctagc actggatttg gaaactttga ggaaattggg
300
cccttgaca gtgatctcaa accacggaaa accacctggc tccaggctgc cagtctccta
360
tttgtggata atcccgtggg cactgggttc agttatgtga atggtagtgg tgcctatgcc
420
aaggacctgg ctatggtggc ttcagacatg atggttctcc tgaagacctt cttcagttgc
480
cacaagaat tccagacagt tccattctac attttctcag agtcctatgg agggaaaaatg
540
gcagctggca ttggtctaga gctttataag gccattcagc gagggacctt caagtgcac
600
tttgcggggg ttgcttgagg tgattcctgg atctccctg ttgattcggg gctctcctgg
660
ggaccttacc tgtacagcat gtctctcttc gaagacaaa gtctggcaga ggtgtctaag
720
gtgcagagc aagtactgaa tgccgtaaat aaggggtctc acagagaggc cacagagctg
780
tgggggaaag cagaaatgat cattgaacag aacacagatg gggtgaaatt ctataacatc
840
ttaactaaaa gcactccac gtctacaatg gagtcgagtc tagaattcac acagagccac
900
ctagtttgtc tctgtcagcg ccacgtgaga cacctacaac gagacgcctt aagccagctc
960
atgaatggcc ccatcagaaa gaagctcaaa attattcctg aggatcaatc ctggggaggc
1020
caggctacca acgtctttgt gaacatggag gaggaattca tgaagccagt catcgacatt
1080
gtggatacgt tgctggaggc aggggtcaat gtgactgtgt ataatgggca gctggatctc
1140
attgtggaca ccataggcca ggaggcctgg gtgcggaaa tgaagtggc agaactgtcc
1200
agattcaatc agctgaagtg gaaggccctg tacagtgaac ctaaattctt ggaaacatct
1260
gcttttgtca agtctctcaa gaaccttgct ttctactgga ttctgaaaag tggctcatatg
1320
gttctctctg accaagggga catggctctg aagatgatga gactggtgac tcagacaagaa
1380
taggattgat ggggctggag atgagctggt ttggccttgg ggcacagagc tgagctgagg
1440
ccgctgaagc tgtaggaagc gccattcttc cctgtatcta actggggctg tgatcaagaa
1500
ggttctgacc agcttctgca gaggataaaa tcattgtctc tggaggcaat ttggaaatta
1560
tttctgcttc ttaaaaaaac ctaagatttt ttaaaaaatt gatttgtttt gatcaaaaata
1620
aaggatgata atagatatta ttttttctta tgacagaagc aaatgatgtg atttatagaa
1680
aaactgggaa atacaggtac ccaaagagta aatcaacatc tgtatacccc cttcccaggg
1740
gtaagcactg ttaccaatct agcatatgtc cttgcagaat tttttttctt atatatacat
1800

atatattttt taccaaaaatg aatcattact ctatgttggt ttactatttg ttgacatat
 1860
 cagtatatct gaaacacett ttcattgtcaa taaatgttct tctctaacat ttaaaaaaaa
 1920
 a
 1921

<210> 2878

<211> 451

<212> PRT

<213> Homo sapiens

<400> 2878

Met	Glu	Leu	Ala	Leu	Arg	Arg	Ser	Pro	Val	Pro	Arg	Trp	Leu	Leu	Leu
1				5					10					15	
Leu	Pro	Leu	Leu	Leu	Gly	Leu	Asn	Ala	Gly	Ala	Val	Ile	Asp	Trp	Pro
			20				25						30		
Thr	Glu	Glu	Gly	Lys	Glu	Val	Trp	Asp	Tyr	Val	Thr	Val	Arg	Lys	Asp
	35					40						45			
Ala	Tyr	Met	Phe	Trp	Trp	Leu	Tyr	Tyr	Ala	Thr	Thr	Pro	Ala	Arg	Thr
	50					55					60				
Ser	Glu	Leu	Pro	Leu	Val	Met	Trp	Leu	Gln	Gly	Gly	Pro	Gly	Gly	Ser
	65				70				75				80		
Ser	Thr	Gly	Phe	Gly	Asn	Phe	Glu	Glu	Ile	Gly	Pro	Leu	Asp	Ser	Asp
			85					90				95			
Leu	Lys	Pro	Arg	Lys	Thr	Thr	Trp	Leu	Gln	Ala	Ala	Ser	Leu	Leu	Phe
			100					105					110		
Val	Asp	Asn	Pro	Val	Gly	Thr	Gly	Phe	Ser	Tyr	Val	Asn	Gly	Ser	Gly
			115				120					125			
Ala	Tyr	Ala	Lys	Asp	Leu	Ala	Met	Val	Ala	Ser	Asp	Met	Met	Val	Leu
	130					135					140				
Leu	Lys	Thr	Phe	Phe	Ser	Cys	His	Lys	Glu	Phe	Gln	Thr	Val	Pro	Phe
	145				150					155				160	
Tyr	Ile	Phe	Ser	Glu	Ser	Tyr	Gly	Gly	Lys	Met	Ala	Ala	Gly	Ile	Gly
			165					170					175		
Leu	Glu	Leu	Tyr	Lys	Ala	Ile	Gln	Arg	Gly	Thr	Ile	Lys	Cys	Asn	Phe
			180				185					190			
Ala	Gly	Val	Ala	Leu	Gly	Asp	Ser	Trp	Ile	Ser	Pro	Val	Asp	Ser	Val
	195					200					205				
Leu	Ser	Trp	Gly	Pro	Tyr	Leu	Tyr	Ser	Met	Ser	Leu	Leu	Glu	Asp	Lys
	210					215					220				
Gly	Leu	Ala	Glu	Val	Ser	Lys	Val	Ala	Glu	Gln	Val	Leu	Asn	Ala	Val
	225				230					235				240	
Asn	Lys	Gly	Leu	Tyr	Arg	Glu	Ala	Thr	Glu	Leu	Trp	Gly	Lys	Ala	Glu
			245					250					255		
Met	Ile	Ile	Glu	Gln	Asn	Thr	Asp	Gly	Val	Asn	Phe	Tyr	Asn	Ile	Leu
	260						265						270		
Thr	Lys	Ser	Thr	Pro	Thr	Ser	Thr	Met	Glu	Ser	Ser	Leu	Glu	Phe	Thr
			275				280						285		
Gln	Ser	His	Leu	Val	Cys	Leu	Cys	Gln	Arg	His	Val	Arg	His	Leu	Gln
	290					295					300				
Arg	Asp	Ala	Leu	Ser	Gln	Leu	Met	Asn	Gly	Pro	Ile	Arg	Lys	Lys	Leu
					310					315				320	
Lys	Ile	Ile	Pro	Glu	Asp	Gln	Ser	Trp	Gly	Gly	Gln	Ala	Thr	Asn	Val

gcccgcccc tcttcccag cacaggtgcc gccatcctg cctccaaccc atttgagcc
 960
 tcagcccatc ctggcagctt cctgccact ggccccctga cagacccttt cagcagacg
 1020
 agcacctttg ggggcctggg cagcctgagc agccacgcct ttgggggcct gggcagccat
 1080
 gcactggctc ccggtggcag catctttgcc ccaaggagg gctcctcgt gctcgacctg
 1140
 cccagcccc atgaggcctg gagccgactg caccgggccc cgccatcctt cccggctccg
 1200
 ccccgctggc ccaagtcctg ggacgcggag cgggtgtcag ccctgaccaa ccatgaccga
 1260
 gagccggtca atggcaagga ggagcaggaa cgggacctcc tggagaagac gcgctgctg
 1320
 agccgggcct cgccccccac ccccgctggc ca
 1352

<210> 2880

<211> 376

<212> PRT

<213> Homo sapiens

<400> 2880

Met	Gly	Pro	Gly	Cys	Trp	Pro	Ala	Gly	Gly	Trp	Thr	Leu	Ala	Pro	Gly
1				5					10					15	
Glu	Gly	Leu	Thr	Val	Phe	Ser	Leu	Ala	Ser	Arg	Cys	Gln	Pro	Gly	Gly
				20				25					30		
Leu	Ile	Gln	Pro	Ala	Asn	His	Val	Leu	Pro	Ala	Ser	Phe	Gly	Asn	Ser
			35				40					45			
Asp	Trp	Tyr	Leu	Val	Thr	Gly	Ser	Ser	Leu	Thr	Cys	Thr	Pro	Gly	Pro
			50			55					60				
Ala	Arg	Gly	Glu	Arg	Pro	Pro	Arg	Leu	Gly	Leu	Pro	Thr	Pro	Gly	Val
65					70					75				80	
Pro	Val	Xaa	Asp	Lys	Tyr	Ala	Pro	Lys	Leu	Asp	Ser	Pro	Tyr	Phe	Arg
				85					90					95	
His	Ser	Ser	Val	Ser	Phe	Phe	Pro	Ser	Phe	Pro	Pro	Ala	Ile	Pro	Gly
			100					105					110		
Leu	Pro	Thr	Leu	Leu	Pro	His	Pro	Gly	Pro	Phe	Gly	Ser	Leu	Gln	Gly
			115				120					125			
Ala	Phe	Gln	Pro	Lys	Thr	Ser	Ser	Pro	Ile	Glu	Val	Ala	Arg	Arg	Ala
			130				135				140				
Gly	Ala	Val	His	Thr	Leu	Leu	Gln	Lys	Ala	Pro	Gly	Val	Ser	Asp	Pro
145					150					155				160	
Tyr	Arg	Ala	Val	Val	Lys	Lys	Pro	Gly	Arg	Trp	Cys	Ala	Val	His	Val
				165						170				175	
Gln	Ile	Ala	Trp	Gln	Ile	Tyr	Arg	His	Gln	Gln	Lys	Ile	Lys	Glu	Met
			180					185					190		
Gln	Leu	Asp	Pro	His	Lys	Leu	Glu	Val	Gly	Ala	Lys	Leu	Asp	Leu	Phe
			195				200					205			
Gly	Arg	Pro	Pro	Ala	Pro	Gly	Val	Phe	Ala	Gly	Phe	His	Tyr	Pro	Gln
			210				215					220			
Asp	Leu	Ala	Arg	Pro	Leu	Phe	Pro	Ser	Thr	Gly	Ala	Ala	His	Pro	Ala
225					230					235				240	
Ser	Asn	Pro	Phe	Gly	Pro	Ser	Ala	His	Pro	Gly	Ser	Phe	Leu	Pro	Thr

gtgaaaatta tggccttttc cggcactggg aagacctcaa cgctgggtcaa gtagcgagag
960
aagtgggtctc agagcagggt tctgtatgtg acattcaaca agagcatcgc aaagcaggcc
1020
gaacgcgtct tccccagcaa cgtcatctgc aaaaccttcc actccatggc ctacgggcac
1080
atagggcgga agtaccagtc aaagaagaag ttgaatctct tcaagttaac acccttcctg
1140
gtcaactccg tccttgcctga aggggaagggt ggattcataa gagccaagct tgtgtgtaag
1200
actctagaaa acttcttttc ctccgctgac gaagagctga ccattgatca cgtgcctatt
1260
tgggtgaaga acagccaagg acagagagtc atggttgagc agagtgaata actgaatggg
1320
gtccttgaag cgagccgcct ctgggataac atgcggaagc tgggggagtg cacagaagag
1380
gcgcaccaga tgaactcatg cggctacttg aaactctggc agctgagcaa gccttcgctg
1440
gcctcttttg acgccatctt tgtggatgag gccaggact gcacaccagc tatcatgaac
1500
atagttctgt ctacgccatg tgggaaaatc tttgtagggg acccgcaacca gcagatctat
1560
accttcgggg gtgcgggtcaa cgcctctgtc acagtgcgcc acaccaagct cttctatctc
1620
acgcagaggt ttcggttttg tgtggaataa gcttatgtgg gagctactat cttggatggt
1680
tgcaagagag tcaggaaaaa gactttgggt ggaggaaacc atcagagtgg cattagagggt
1740
gacgcaaagg ggcaagtggc cttgttgtcc cggaccaacg ccaacgtgtt tgatgaggcc
1800
gtacgggtga cggaagggga attcccttca aggatacatt tgattggggg gattaaatca
1860
tttggtatgg acagaatcat tgatatttgg atcctctctc agccagagga agaaggagg
1920
aaacaaaacc tcgtcattaa agacaaattc atcagaagat ggggtgcaca agaaggcttt
1980
agtggcttca agaggatatg gaccctgtgc gaggacaagg agcttgaagc caagatcgca
2040
gttgttgaaa agtataacat caggattcca gagctggtgc aaagataga aaaaatccat
2100
atagaagatt tggactttgc agagtacatt ctgggcactg tgcacaaagc caaaggcctg
2160
gagtttgaca ctgtgcatgt tttggatgat tttgtgaaag tgccttgtgc cgggcataac
2220
ctgcccagc ttcgcactt cagagttgag tcattttctg aggatgaatg gaatttactg
2280
tatgttcgag taactcgagc caagaagcgt ctcatcatga ccaaatcatt ggaaaacatt
2340
ttgacttttg ctggggagta cttcttgcga gcagagctga caagcaagct cttaaaaaca
2400
ggcgtggtgc gctgctgcgt gggacagtgc aacaatgcca tcctgttgta caccgtcctt
2460
accatgaaga agctgcccat cacctatagc aacaggaagg aaaacaaggg gggctacctc
2520

tgccactcct gtgcggagca ggcacatcggg cccctggcgt tcctgacagc ctccccggag
 2580
 caggtgcgcg ccatggagcg cactgtggag aacatcgtae tgccccggca tgaggccctg
 2640
 ctctctcctg tcttctgagg acaaggcgca cgttctccgc agtgcagagc agcttgccga
 2700
 ggacccccgc tgaagaaagc cagcgagggg ggcttctgct cctgagact ctgggttcac
 2760
 ccacgacact ttctgaggaa gaggacacca gcccaagctg gacctgccat ttctccacct
 2820
 cctacagaca gccagctctcc acttgccctcc cctctggatg tatctggatc gggaagtggg
 2880
 ggatgttctt ttgataaaaa aaaaaaaaaa ttttatgtat ttaaaactttt attacaagat
 2940
 ttcaattaaa caggcaccat agcactggca aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 3000
 aaaaaaaaaa aaaaaaaaaa a
 3021

<210> 2882
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 2882
 Gly Gln Gly Ala Arg Ser Pro Gln Cys Arg Ala Ala Cys Arg Gly Pro
 1 5 10 15
 Arg Val Lys Lys Ala Ser Glu Gly Gly Phe Cys Ser Leu Arg Leu Trp
 20 25 30
 Val His Pro Gln His Phe Leu Arg Lys Arg Thr Pro Ala Gln Ala Gly
 35 40 45
 Pro Ala Ile Ser Pro Leu Pro Thr Asp Ser Gln Ser Pro Leu Ala Ser
 50 55 60
 Pro Leu Asp Val Ser Gly Gln Gly Ser Gly Gly Cys Ser Phe Asp Lys
 65 70 75 80
 Lys Lys Lys Lys Phe Tyr Val Phe Lys Leu Leu Leu Gln Asp Phe Asn
 85 90 95

<210> 2883
 <211> 516
 <212> DNA
 <213> Homo sapiens

<400> 2883
 gagaaggagg acaggggtga gtactcccc gcacttgccc tgccagcct ccggggctgc
 60
 taccacgagg ggccggctgg tgggtcggcg gcggcaccca gcagtgtgga cagctaccgg
 120
 tacggggctgc ccacacctcc tgaaatgtct ccctggagc tgctggagcc ggagcagacc
 180
 ttcttctcct ccccttgcca ggaggagcat ggccatcccc gccgcatccc ccacctgcca
 240
 gggcaccctg actcaccgga gtacgcccc agccctctcc actgtagcca cccctgggc
 300

tccttgcccc ttggccagtc ccccgccgctc tccatgatgt cccctgtacc cggctgtccc
 360
 ccattctctg cctattactc cccggccacc taccaccacac tccaatccaa cctccaagcc
 420
 caccctggcc agctttcccc gcctctgag caccctggct tcgacgcctt ggatcaactg
 480
 aaccaggggtg aactcctggg ggacatggat cgcaat
 516

<210> 2884

<211> 172

<212> PRT

<213> Homo sapiens

<400> 2884

Glu Lys Glu Asp Arg Gly Glu Tyr Ser Pro Ala Leu Ala Leu Pro Ser
 1 5 10 15
 Leu Arg Gly Cys Tyr His Glu Gly Pro Ala Gly Gly Ala Ala Ala Ala
 20 25 30
 Pro Ser Ser Val Asp Thr Tyr Pro Tyr Gly Leu Pro Thr Pro Pro Glu
 35 40 45
 Met Ser Pro Leu Asp Val Leu Glu Pro Glu Gln Thr Phe Phe Ser Ser
 50 55 60
 Pro Cys Gln Glu Glu His Gly His Pro Arg Arg Ile Pro His Leu Pro
 65 70 75 80
 Gly His Pro Tyr Ser Pro Glu Tyr Ala Pro Ser Pro Leu His Cys Ser
 85 90 95
 His Pro Leu Gly Ser Leu Ala Leu Gly Gln Ser Pro Gly Val Ser Met
 100 105 110
 Met Ser Pro Val Pro Gly Cys Pro Pro Ser Pro Ala Tyr Tyr Ser Pro
 115 120 125
 Ala Thr Tyr His Pro Leu His Ser Asn Leu Gln Ala His Leu Gly Gln
 130 135 140
 Leu Ser Pro Pro Pro Glu His Pro Gly Phe Asp Ala Leu Asp Gln Leu
 145 150 155 160
 Asn Gln Gly Glu Leu Leu Gly Asp Met Asp Arg Asn
 165 170

<210> 2885

<211> 807

<212> DNA

<213> Homo sapiens

<400> 2885

aagcttcagg gcattgggca ttccangaat accattcgag aaatgttttc tcagttcgca
 60
 gagtttgatg atgaactgga tagcatggct ccagtgggga gagatgcaga aacattgcga
 120
 aagcaaaagg aaactataaa agcctttcta aagaaactag aagccctcat agcaagcaat
 180
 gacaatgccca ataaaacctg caagatgatg tttagccacag aagaaacctc tcttgacctt
 240
 gttggaatca aaagggactt ggaggcctta agcaaacaaat gcaacaagtt actggaccga
 300

gcccaagcca gagaagagca ggttgaaggg acaattaagc gccttgaaga attttacagc
 360
 aaattgaaag aattttctat tctgctccag aaagccgaag aacatgaaga gtcacaaggt
 420
 cctgttggtta tggaaacgga gacaattaat cagcagctta acatgttcaa ggtattccag
 480
 aaagaagaga ttgaaccctt gcaaggtaaa cagcaagatg taaactgggtt aggtcaaggc
 540
 cttattcaga gtgctgccaa aagcactagc actcagggtt tggagcatga cctggatgat
 600
 gtcaatgcac ggtggaagac tctcaataag aaggtggctc agcgagcagc ccagctgcag
 660
 gaggccttgc tgcactgttg gaggttccag gatgcccttg agtcctctct cagctggatg
 720
 gtggacactg aggagcttgt ggccaatcag aagccccctg cggctgagtt caaagtggta
 780
 aaggacaaga tacaagaaca aaagctt
 807

<210> 2886

<211> 269

<212> PRT

<213> Homo sapiens

<400> 2886

Lys	Leu	Gln	Gly	Ile	Gly	His	Phe	Xaa	Asn	Thr	Ile	Arg	Glu	Met	Phe
1				5					10					15	
Ser	Gln	Phe	Ala	Glu	Phe	Asp	Asp	Glu	Leu	Asp	Ser	Met	Ala	Pro	Val
			20					25					30		
Gly	Arg	Asp	Ala	Glu	Thr	Leu	Gln	Lys	Gln	Lys	Glu	Thr	Ile	Lys	Ala
			35				40						45		
Phe	Leu	Lys	Lys	Leu	Glu	Ala	Leu	Ile	Ala	Ser	Asn	Asp	Asn	Ala	Asn
	50					55					60				
Lys	Thr	Cys	Lys	Met	Met	Leu	Ala	Thr	Glu	Glu	Thr	Ser	Pro	Asp	Leu
65					70					75					80
Val	Gly	Ile	Lys	Arg	Asp	Leu	Glu	Ala	Leu	Ser	Lys	Gln	Cys	Asn	Lys
				85					90					95	
Leu	Leu	Asp	Arg	Ala	Gln	Ala	Arg	Glu	Glu	Gln	Val	Glu	Gly	Thr	Ile
			100					105					110		
Lys	Arg	Leu	Glu	Glu	Phe	Tyr	Ser	Lys	Leu	Lys	Glu	Phe	Ser	Ile	Leu
		115				120					125				
Leu	Gln	Lys	Ala	Glu	Glu	His	Glu	Glu	Ser	Gln	Gly	Pro	Val	Gly	Met
	130				135						140				
Glu	Thr	Glu	Thr	Ile	Asn	Gln	Gln	Leu	Asn	Met	Phe	Lys	Val	Phe	Gln
145					150					155					160
Lys	Glu	Glu	Ile	Glu	Pro	Leu	Gln	Gly	Lys	Gln	Gln	Asp	Val	Asn	Trp
			165					170						175	
Leu	Gly	Gln	Gly	Leu	Ile	Gln	Ser	Ala	Ala	Lys	Ser	Thr	Ser	Thr	Gln
		180						185					190		
Gly	Leu	Glu	His	Asp	Leu	Asp	Asp	Val	Asn	Ala	Arg	Trp	Lys	Thr	Leu
		195					200				205				
Asn	Lys	Lys	Val	Ala	Gln	Arg	Ala	Ala	Gln	Leu	Gln	Glu	Ala	Leu	Leu
	210					215					220				
His	Cys	Gly	Arg	Phe	Gln	Asp	Ala	Leu	Glu	Ser	Leu	Leu	Ser	Trp	Met

225 230 235 240
Val Asp Thr Glu Glu Leu Val Ala Asn Gln Lys Pro Pro Ser Ala Glu
 245 250 255
Phe Lys Val Val Lys Asp Lys Ile Gln Glu Gln Lys Leu
 260 265

```
<210> 2887
<211> 1945
<212> DNA
<213> Homo sapiens
```

400> 2887
nnnggggctg tttaaagatg gcgcggaggg aacctcagca gcagaagcag gaggccgtcg
60 gcagcgactc cgaaggtgtt aactgtctgg cctatgatga agccatcatg gctcagcagg
120 accgaattca gcaagagatt gctgtgcaga acctctctgt gtcagagcgt ctggagctct
180 cggctctata caaggagtat gctgaagatg acaacatcta tcaacagaaat atcaaggacc
240 tccacaaaaa gtactcgtac atccgcaaga ccaggcctga cggcaactgt ttctatcggg
300 ctttcggatt ctcccactgc gaggcactgc tggatgacag caaggagtgt cagcgggtgag
360 aagggtgggc actgggcacc gaggcagggt ggtgtctacc tctctcccg gcgagttaga
420 tgtgtctcga gtagggtgtc tccctccttc cggggcgatg ggctggactc tggccttgcc
480 aggcggggca gtgctgtctc ggcctggcg tctgggctgg tcgaggagcc catgctgggc
540 cgcgctttcc atcccacccc caggttcaag gctgtgtctg ccaagagcaa ggaagacctg
600 gtgtcccagg gcttcactga attcaaatg gaggatttcc aacacagtt catggacctg
660 attgagcagg tggagaagca gacctctgtc gccgacctgc tggcctctct caatgaccag
720 agcacctccg actaccttgt ggtctacctg cggtgctca cctcgggcta ctcgcagcgc
780 gagagcaagt tcttcgagca cttcatcgag ggtggacgga ctgtcaagga gtctctccag
840 caggaggtgg agcccatgtg caaggagagc gaccacatcc acatcattgc gctggcccag
900 gccttcagcg tgcattcca ggtggagtac atggaccgcg gcgagggcgg caccaccaat
960 cgcacatctc tccctgaggg ctccgagccc aagggtctac ttctctaccg gctgtgacac
1020 tacgatatcc tctacaataa gggctggctc cagcccgctg ctgcccgtgt gcccccctct
1080 gccaggcgct agacatgtac agaggttttt ctgtggttgt aaatggctct atttcacccc
1140 cttcttctct tcacatgacc cccccccatg tttattataa ggggggtgtg gtggtgagcc
1200 gtgtgtgcgt gtcctgtctc tgtctccccc ctggctgtctc tgtctgtgtc cctctcccc
1260

cagggtgggtc cccctgcttt tcacctatct actectgagc tcccccaaca ggagcagggt
 1320
 tgagggggcca ggcctcttgg aggccectcc tgcttcgttg ggttctgctt ccttcccttc
 1380
 tttagctggct caggggcttc tatgggatcc tggaagtcc ttagggactt gccagggtc
 1440
 ccaggggccac ccacacttca tctgtccct cataggcccc acctccacgt cccggtggg
 1500
 cccagagccc cagcttcttg cctccaccg ggagtctgca tgggtgggag tcttgggtg
 1560
 aggggcccctt gtgaggctgg acccggtcca gggcagggtg aggagctggg cctccacag
 1620
 ggtgccccggg cagtgccatc ctggtggggg agggcagcct tcaaactgtg ggggtctaca
 1680
 gtctcaggt ctaggcaggg ctgcgggttc tccacctccc catccgcccc agggccccg
 1740
 cctgtgctg ccttgacccc cctctgcttg ggccacggtg tctctgcatt gcctgcttt
 1800
 ttgccttcac ctcttttctt ccccgcccc tgcacattcg gggtctcagc cccagggtg
 1860
 tgagctcctt gggggcaggc cctcaataaa tgtgaactgc tgctgccaaa aaaaaaaaaa
 1920
 aaaaaaaaaa aaaaaaaaaa aaaaa
 1945

<210> 2888

<211> 315

<212> PRT

<213> Homo sapiens

<400> 2888

Met Met Lys Pro Ser Trp Leu Ser Arg Thr Glu Phe Ser Lys Arg Leu
 1 5 10 15
 Leu Cys Arg Thr Leu Trp Cys Gln Ser Gly Trp Ser Ser Arg Ser Tyr
 20 25 30
 Thr Arg Ser Met Leu Lys Met Thr Thr Ser Ile Asn Arg Arg Ser Arg
 35 40 45
 Thr Ser Thr Lys Ser Thr Arg Thr Ser Ala Arg Pro Gly Leu Thr Ala
 50 55 60
 Thr Val Ser Ile Gly Leu Ser Asp Ser Pro Thr Trp Arg His Cys Trp
 65 70 75 80
 Met Thr Ala Arg Ser Cys Ser Gly Glu Lys Gly Gly His Trp Ala Pro
 85 90 95
 Arg Gln Val Gly Val Tyr Leu Leu Pro Gly Arg Val Gly Cys Val Ser
 100 105 110
 Ser Arg Val Ser Pro Ser Phe Pro Gly Asp Gly Leu Asp Ser Gly Leu
 115 120 125
 Ala Arg Arg Gly Ser Ala Val Ser Ala Leu Ala Ser Gly Leu Val Glu
 130 135 140
 Glu Pro Met Leu Gly Pro Pro Phe His Pro Thr Pro Arg Phe Lys Ala
 145 150 155 160
 Val Ser Ala Lys Ser Lys Glu Asp Leu Val Ser Gln Gly Phe Thr Glu
 165 170 175
 Phe Thr Ile Glu Asp Phe His Asn Thr Phe Met Asp Leu Ile Glu Gln

	180		185		190										
Val	Glu	Lys	Gln	Thr	Ser	Val	Ala	Asp	Leu	Leu	Ala	Ser	Phe	Asn	Asp
	195		200		205										
Gln	Ser	Thr	Ser	Asp	Tyr	Leu	Val	Val	Tyr	Leu	Arg	Leu	Leu	Thr	Ser
	210		215		220										
Gly	Tyr	Leu	Gln	Arg	Glu	Ser	Lys	Phe	Phe	Glu	His	Phe	Ile	Glu	Gly
225			230		235										240
Gly	Arg	Thr	Val	Lys	Glu	Phe	Cys	Gln	Gln	Glu	Val	Glu	Pro	Met	Cys
	245		250		255										
Lys	Glu	Ser	Asp	His	Ile	His	Ile	Ile	Ala	Leu	Ala	Gln	Ala	Leu	Ser
	260		265		270										
Val	Ser	Ile	Gln	Val	Glu	Tyr	Met	Asp	Arg	Gly	Glu	Gly	Gly	Thr	Thr
	275		280		285										
Asn	Pro	His	Ile	Phe	Pro	Glu	Gly	Ser	Glu	Pro	Lys	Val	Tyr	Leu	Leu
	290		295		300										
Tyr	Arg	Pro	Gly	His	Tyr	Asp	Ile	Leu	Tyr	Lys					
305			310		315										

<210> 2889

<211> 614

<212> DNA

<213> Homo sapiens

<400> 2889

gtgcacccccc ccgaggtgca gctgccgaaa gtgtcagaga ttcggctgcc ggaaatgcaa
60
gtgncogaag ttcccagcgt gcattcttcg aagncaccag aggtgaagct gccaggggct
120
ccggaggtgc agctaaaggc caccaaggca gaacaggcag aagggatgga atttggtctc
180
aagatgcccc agatgacccat gcccagcta gggaggcag agtccccatc acgtggcaag
240
ccaggcgagg cgggtgctga ggtctcaggg aagctggtaa cacttccttg tctgcagcca
300
gaggtggatg gtgaggctca tgtgggtgtc cctctctca ctctgccttc agtggagcta
360
gacctgccag gagcacttgg cctgcagggg caggtccccc ccgctaaaat gggcaaggga
420
gagcgggcgg agggccccga ggtggcagca ggggtcaggg aagtgggctt ccgagtcccc
480
tctgttgaaa ttgtaccccc acagctgccc gccgtggaaa ttgaggaagg gcggctggag
540
atgatagaga caaaagtcaa gccctcttcc aagttctcct tacctaagtt tggactctcg
600
ggaccaaagg tggc
614

<210> 2890

<211> 204

<212> PRT

<213> Homo sapiens

<400> 2890

Val His Leu Pro Glu Val Gln Leu Pro Lys Val Ser Glu Ile Arg Leu

```

1           5           10           15
Pro Glu Met  Gln Val Xaa Glu Val Pro Asp Val His Leu Pro Lys Xaa
20
Pro Glu Val Lys Leu Pro Arg Ala Pro Glu Val Gln Leu Lys Ala Thr
35
Lys Ala Glu Gln Ala Glu Gly Met Glu Phe Gly Phe Lys Met Pro Lys
50
Met Thr Met Pro Lys Leu Gly Arg Ala Glu Ser Pro Ser Arg Gly Lys
65
Pro Gly Glu Ala Gly Ala Glu Val Ser Gly Lys Leu Val Thr Leu Pro
85
Cys Leu Gln Pro Glu Val Asp Gly Glu Ala His Val Gly Val Pro Ser
100
Leu Thr Leu Pro Ser Val Glu Leu Asp Leu Pro Gly Ala Leu Gly Leu
115
Gln Gly Gln Val Pro Ala Ala Lys Met Gly Lys Gly Glu Arg Ala Glu
130
Gly Pro Glu Val Ala Ala Gly Val Arg Glu Val Gly Phe Arg Val Pro
145
Ser Val Glu Ile Val Thr Pro Gln Leu Pro Ala Val Glu Ile Glu Glu
165
Gly Arg Leu Glu Met Ile Glu Thr Lys Val Lys Pro Ser Ser Lys Phe
180
Ser Leu Pro Lys Phe Gly Leu Ser Gly Pro Lys Val
195
200

```

<210> 2891

<211> 565

<212> DNA

<213> Homo sapiens

<400> 2891

```

tttttttttt tttttttttt tttttttttt tttttttttt ccatgctccc actggtttat
60
ttcaacccca aatattttcc aacagaagta gaaaacaggg catattaaac aaacaacaaa
120
ccaaccaacc aacaaaaacta aaagtgtatc tgacacaggt caggtgataa gcagggaaat
180
gggattatca gacaccggct ctttggcaca cactgcgaag tcagcccttc tgcccagttc
240
ggaaaagcaa cggcgtaagt caatgtgatg aagaggtcca gcctctcgtc gggaacttgg
300
cgcgaaaatg ggtaatgctt ttctgttaga tgtggagtggt agctggtgtt gcaatgggtg
360
tttgctcagg gctcggcaca gacgtctctc ggccctccac tgcgatgttg ctcttttggtc
420
tcttaacaac atggggacga ggtggggcga cctttccaaa gtggactgtg atttggccgc
480
cgttcttctc ggagcttggg gttccttgcc ctccaccagt ggggacggtg cagttcttgg
540
cagctgctct tctgggttgg gggcc
565

```

<210> 2892

<211> 90
 <212> PRT
 <213> Homo sapiens

<400> 2892
 Met Leu Leu Arg Asp Gln Arg Ala Thr Ser Gln Trp Lys Ala Gly Gly
 1 5 10 15
 Arg Leu Cys Arg Ala Leu Ser Lys Thr Pro Leu Gln His Gln Leu His
 20 25 30
 Ser Thr Ser Tyr Arg Lys Ala Leu Pro Ile Leu Arg Pro Ser Ser Arg
 35 40 45
 Arg Glu Ala Gly Pro Leu His His Ile Asp Leu Arg Arg Cys Phe Ser
 50 55 60
 Arg Leu Gly Arg Gly Ala Asp Phe Ala Val Cys Ala Lys Glu Pro Val
 65 70 75 80
 Ser Asp Asn Pro Ile Phe Leu Leu Ile Thr
 85 90

<210> 2893
 <211> 2270
 <212> DNA
 <213> Homo sapiens

<400> 2893
 cacaactctt caccatttcc ctgccccctt ctggatacgc tgcctgttct ttctgtgcct
 60
 agccctgtcc aagctctatg agacctctct ctgcctgcag tctgtttctg ctgtacctcc
 120
 tcaattctgg cctgtgctct tctagggaga ctagatgtat gcaccaccca gaaactgcc
 180
 gtagggagca cctacacagg atgaactggc agctaggcca tgtttatttc ccttgggtgg
 240
 gcacccgaca ggcagagttt attccctcag cttgggggtg gcagtgggtg tggtagtgct
 300
 aggggttact gcaggcaggt ttctgtttct ttgcatcccg ggactggcct gttctcacct
 360
 tttgtttctg tccctctctg gtgtatttac tttctctctt ttgcattgt tctcagcctt
 420
 ccattctcat ctcttcatct ctgcctctct tgccctgcat tctcattct tgattgtccc
 480
 tgctctctcc tctgccattc cctctctctc cctcagctct gtggtctctg ctccctgtct
 540
 cactctccct ataactggcc tctcctgcc cagaccttcc tggacgagct gcattagaca
 600
 gggcagctgc actctatgtc cacctggatg gagctatata cagcagtcag cactgatgtc
 660
 cgctttgcc aatgctctgg ccagccgggc tccacccttc tggacttatt caagtcttat
 720
 gtggaggagt tgaaggcagc attccatgat gaaaagaaga tcattaagga catccttaag
 780
 gaccggggct tctgcgtgga ggtgaacacg gcctttgagg acttcgcccc cgtcataagc
 840
 ttgacaaga gggctgcgcg actggacgca ggcaacatca agctgacctt caatagtctg
 900

ctggagaaaag cagagggcacg ggagagggag cgggagaaag aggagggcacg caggatgcgg
 960
 cgcagggaag ctgcctttcg aagcatgctg aggcaggctg tgcctgctct ggagctaggc
 1020
 actgcctggg aagaggtccg tgagcgtttt gtgtgtgact cagcctttga gcagatcacc
 1080
 cggagtcgg agcggatccg gctcttccgg gagttcctac aggtgctgga gactgaatgc
 1140
 cagcacctcc acaccaaagg ccgaaagcat ggagagaaag gcaagaagca ccatcacaa
 1200
 cgttcccact caccctcagg ctctgagtca gaagaagagg agctgcccc accatctctc
 1260
 cggcccccca agcggaggag gcggaacccc tcagagtcag gctctgagcc ctcttctcca
 1320
 cttgattcag ttgaaagtgg ggggtgctgcc cttggaggag ggggtctccc ttcttccc
 1380
 cttcttggag cagatcatgg ccttcggaag gccaaagaa caaaaaagaa aactaagaag
 1440
 agaagacaca agtcgaatag tcctgagagt gagacagacc ctgaggagaa agctggcgaag
 1500
 gagagcgatg agaaagaaca agaacaggac aaggacaggg agctccaaca ggagagagctc
 1560
 cctaaccgtt cccagagctt tggaaatcaag aaggagaaga caggctggga cagtcagaa
 1620
 agtgagctga gtgaggggtga gctggaggag cggggcgga cactcctaca gcagctggat
 1680
 gatcaccagt gacccaatga gctgttctct gcctcgggct tgtgtgaggc catggctcct
 1740
 gggccaccct caccgtctgc ctacagacttc ttcttagtc tgggtctgtgt ccaatttttc
 1800
 taaagtaacc ccacccccag cacaccattg ttggcacctc tcaaggttgc tcttgggtgtt
 1860
 caaggggtccc ctactccctg gactagtcca gtccttgccc tcagccccag accagagatg
 1920
 ggtggtatat gccatgtggg gtgggtgatg ccagtagata aaagtgtgag agaagggggtc
 1980
 tccagggaag agtcacaggc tgttggaagc agcctgggtg gcagagggga gggatcatc
 2040
 cctctagcat cagtgcctgc tcctgcctgc cctggccctg aggtccacc acttcttctc
 2100
 ccaccaggga cctaattgtac gtgtgttttt tttttgttt tttaataaac aatatttata
 2160
 acatgaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 2220
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 2270

<210> 2894

<211> 490

<212> PRT

<213> Homo sapiens

<400> 2894

Met Phe Ile Ser Leu Gly Gly Ala Pro Asp Arg Gln Ser Leu Phe Pro

1	5	10	15
Gln Leu Gly	Gly Ser	Gly Gly Gly Ser Ala Arg	Gly Tyr Cys Arg
	20	25	30
Gln Val Ser Val	Ser Leu His	Pro Gly Thr Gly Leu Phe	Ser Pro Phe
	35	40	45
Cys Ser Val Pro	Leu Trp Cys Ile Tyr	Phe Leu Ser Phe Cys	Ile Val
	50	55	60
Leu Ser Leu Pro	Ser Ala Ser Leu His	Leu Cys Leu Ser Cys	Leu His
	65	70	75
Phe Leu Asn Leu	Asp Cys Pro Cys Leu	Phe Leu Cys His Ser	Leu Ser
	85	90	95
Ser Pro Ser Val	Cys Gly Ser Ala Ser Leu	Ser His Ser Pro Tyr	Asn
	100	105	110
Trp Pro Leu Pro	Ala Gln Thr Phe Leu	Asp Glu Leu His Glu	Thr Gly
	115	120	125
Gln Leu His Ser	Met Ser Thr Trp Met	Glu Leu Tyr Pro Ala	Val Ser
	130	135	140
Thr Asp Val Arg	Phe Ala Asn Met Leu Gly	Gln Pro Gly Ser Thr	Pro
	145	150	155
Leu Asp Leu Phe	Lys Phe Tyr Val Glu Glu	Leu Lys Ala Arg Phe	His
	165	170	175
Asp Glu Lys Lys	Ile Ile Lys Asp Ile Leu	Lys Asp Arg Gly Phe	Cys
	180	185	190
Val Glu Val Asn	Thr Ala Phe Glu Asp	Phe Ala His Val Ile	Ser Phe
	195	200	205
Asp Lys Arg Ala	Ala Ala Leu Asp Ala Gly	Asn Ile Lys Leu Thr	Phe
	210	215	220
Asn Ser Leu Leu	Glu Lys Ala Glu Ala Arg	Glu Arg Glu Arg	Glu Lys
	225	230	235
Glu Glu Ala Arg	Arg Met Arg Arg Arg	Glu Ala Ala Phe Arg	Ser Met
	245	250	255
Leu Arg Gln Ala	Val Pro Ala Leu Glu	Leu Gly Thr Ala Trp	Glu Glu
	260	265	270
Val Arg Glu Arg	Phe Val Cys Asp Ser Ala Phe	Glu Gln Ile Thr Leu	
	275	280	285
Glu Ser Glu Arg	Ile Arg Leu Phe Arg	Glu Phe Leu Gln Val	Leu Glu
	290	295	300
Thr Glu Cys Gln	His Leu His Thr Lys Gly	Arg Lys His Gly Arg	Lys
	305	310	315
Gly Lys Lys His	His His Lys Arg Ser His	Ser Pro Ser Gly Ser	Glu
	325	330	335
Ser Glu Glu Glu	Glu Leu Pro Pro Pro	Leu Arg Pro Pro Lys	Arg
	340	345	350
Arg Arg Arg Asn	Pro Ser Glu Ser Gly	Ser Glu Pro Ser Ser	Ser Leu
	355	360	365
Asp Ser Val Glu	Ser Gly Gly Ala Ala Leu	Gly Gly Arg Gly Ser	Pro
	370	375	380
Ser Ser His Leu	Leu Gly Ala Asp His Gly	Leu Arg Lys Ala Lys	Lys
	385	390	395
Pro Lys Lys Lys	Thr Lys Lys Arg Arg His	Lys Ser Asn Ser Pro	Glu
	405	410	415
Ser Glu Thr Asp	Pro Glu Glu Lys Ala Gly	Lys Glu Ser Asp Glu	Lys
	420	425	430
Glu Gln Glu Gln	Asp Lys Asp Arg Glu	Leu Gln Gln Ala Glu	Leu Pro

```

          435                440                445
Asn Arg Ser Pro Gly Phe Gly Ile Lys Lys Glu Lys Thr Gly Trp Asp
   450                455                460
Thr Ser Glu Ser Glu Leu Ser Glu Gly Glu Leu Glu Arg Arg Arg Arg
   465                470                475                480
Thr Leu Leu Gln Gln Leu Asp Asp His Gln
          485                490

```

<210> 2895

<211> 697

<212> DNA

<213> Homo sapiens

<400> 2895

```

nmtctagatg taactgctat cggtgtcttt tctctcaagt gccgagagag aagcgctaac
60
ttctgctcca gcatcatctc cagcttcttg cctctgttgg agatccagtg gtccactccg
120
tgcaggcggt agcacgtctc cagcatcaac ctgaagtcgg ccacgaactc ggtgatgccc
180
cgtactgggc cgctggcgaa cttctcttcc atctgcagca gacacatgcc ctgtccgggc
240
tgctgcggga aggcgcgacc gccccggccc ccgctgcgcg gcccttctgc caactctctc
300
tgccgcggtg gcaacgcccc ccaaggcgctg cagaaagggg gcggtgaggc cccggtgctt
360
ctctgcagg aactcgcccc ggatcgggta gccctgctg tagctcgtag gtcagctcct
420
gtccttgca gcaaccgcct ccgaccccc tcgctctcat ctctctctcc tgatcgtcog
480
cgtctccag cgaggaggca ctcttccgt gggccggccc tgaggctctg gcccgctg
540
caactctctc ctgctcgccc tctctctcgg ccgccgggtg cggccgctct tctctcccag
600
ccggtcccat cgctcccgcc gtcccgggca cactcatgcc ccggcaggcc taggtcgggc
660
ggtgtggaac agccgctcga ggtgctgggg gacgcgt
697

```

<210> 2896

<211> 174

<212> PRT

<213> Homo sapiens

<400> 2896

```

Met Pro Pro Tyr Trp Pro Leu Ala Asn Phe Ser Ser Ile Cys Ser Arg
1          5          10          15
His Met Pro Cys Pro Gly Cys Cys Gly Lys Ala Arg Pro Pro Arg Pro
20          25          30
Pro Leu Arg Gly Pro Ser Ala Thr Ser Ser Cys Arg Gly Gly Asn Ala
35          40          45
Pro Gln Gly Leu Gln Lys Gly Gly Gly Glu Ala Pro Val Leu Leu Leu
50          55          60
Gln Glu Leu Ala Gln Asp Ala Val Ala Pro Ala Val Ala Arg Arg Ser

```

65		70		75		80
Ala	Pro	Ala	Pro	Cys	Ser	Asn
		85	Ser	Arg	Leu	Arg
				90	Ser	Pro
					Ser	Pro
					95	Ser
Leu	Pro	Pro	Asp	Arg	Pro	Arg
		100	Pro	Arg	Pro	Ala
				105	Arg	Arg
					His	Ser
					110	Phe
Gly	Pro	Ala	Leu	Arg	Ser	Gly
		115	Pro	Pro	Leu	Pro
				120	Pro	Pro
					125	Arg
						Arg
Pro	Leu	Leu	Arg	Pro	Pro	Val
		130	Ala	Ala	Ala	Ala
				135	Leu	Pro
					140	Gln
						Pro
Pro	Ser	Leu	Pro	Ala	Ser	Arg
		145	Ala	His	Ser	Cys
				150	Pro	Gly
					155	Arg
						Pro
Leu	Gly	Gly	Val	Glu	Gln	Pro
			165	Leu	Glu	Val
					170	Leu
						Gly
						Asp
						Ala

<210> 2897

<211> 3184

<212> DNA

<213> Homo sapiens

<400> 2897

```

tttttttttt tttttttttt tttttttttt tttttttttt tttttgtagt tataatgttt
60
aatatggaat agatatttca tatctatatt tggaaaacac ataataggga aataactgcc
120
ctataattgt atgagaagaa taaaaacagt tcctttagaa ttcttattgt ttctctctatt
180
ctttttcagg ctaagacaat gcatagcttt tgggtgatac aggtaaccct gggtaccact
240
aaagggtgat ccccttcaga taataaacc atttaactcc agtctcactc ccttcaccag
300
gagggcgact cacagtcagc ttggtgggtga tgggggtttt gctgccagat ggggttccctt
360
caaaggagac tgtgatgttg ttgatcttct tgggccgcac agactctcca gcgcgaatgg
420
tgaaggcttg gttatccacg atgatggaga aggtcaccat gtgatagaag acattcttga
480
aggggatgat tatgctgtac ccggctcgga tcgagaaggc accttggggc ttgggaggca
540
gagccattcc aaagaggggg atgatatact ctccacctgc gagcgatgat aggatcagga
600
tgcccttggt ctcacccagg tggctgggct cgaataagac ttccacactg gcttcagtgc
660
ctccctggcc tcctggggct gcattaatga gtttttctgc gtggaagtct gtacagtcgg
720
tctgcagta gtattctgtc ctctgccgtg tgtaattgat gaacttcaca aggatgattt
780
ggctgctgcc aaggacagtc tggaaagtga caggcttttc cggaagtgtc ggcctggcct
840
tcagatagag ctcatattgg tagtaaccca agtcagtgtt gtgcaaatgt agtcttccga
900
aggttttctc agcttttcagg ggctgaaatt caaatgagaa cgtgccctcg gagtgtggcg
960
gcaccacaaa ctgggagggc agggcgatgt cgggcatccg gcattccgtg gagaaggta
1020

```

ccgagtaggg cagaggggtc tccaacttga tggaggctga cgcaacttgc cggactgggg
1080
tcaccatctc gatgggtttg atgatgcctg aagggatgac cctgaaactc acattgtagt
1140
acaagaactc atttgcacc tcgtttcggg agatcacctt tgcagcgtac gttccctcct
1200
tgtagggaaa gaagttcagc ttgtagtctt tcttagagcc agacagtaca tcaatgtaat
1260
caaggccctt catagtgatg cttaggtccg gcttctcttg tttcagtatt tccacgatga
1320
cccggaaatc ctggggcttg ttcagccagt tgggtatttg cagaagctca gtgtaggggg
1380
tcttacatgg cacttcacga tagatatttg ctacagctt ggggagctca gaagtccat
1440
gcagagcata cagccagccg gtcccatctg ggagggggaa gaagaggggt cctcggtgct
1500
tgcggttctc caagttcatg gtgcggggcc tgtagggtat ctcatagggc ttgttttgct
1560
ggtagggcctc caggggtgat aactcaggcc cctcccagtg ctgcctctca aagatggggg
1620
gcagattcca ggtctggttg gtgcgggttg acagcaggat ggtctgcgtg tgcttgagag
1680
gcacctggca cgtgaaattc actacctctt ttacgcagg tggtcccacg cagactccag
1740
acaggggttag actcagagga ctgcctcctt ggatgtagca gagaatgttt ttacaaaggc
1800
tctcctttcc cactcgggtg ggatggtagg tcaactcaaa agaaacctcc atgcctgagg
1860
taatatagcc ttcttctggg ctaatggaga aatgaggtc aaattttttg atgtcccat
1920
taaaccttgc acccacatcg cctgtgttca acatgaggat gcgacgcgtg gcttgcgtct
1980
gatacaccac ggggtccaaag ggaatatgtt cctgggtccg tgagatctcc agggcctggc
2040
agcagccgct aaggaggaag agggggcgca ggagcccatg gcattccatg aacacttctt
2100
cagagaaggg agggacacgc ttcttcgggg caaagatgac ttccagttta cagacttctt
2160
tgggcttcag tgtgatgttg tggaaggcgc ccaggggtgag gaccttgggt tcttgagggt
2220
ctggaattgt gaacagaatg gactgattaa atgtgagctg ggccaggctg ttgttcatga
2280
tggaactgt tcttttcaca acctgcctg gtaggacag tcccaacttc acaactctgt
2340
tggtggatc taggactaaa atcttcattt cggtaacctt ccttttgatt tgcactgttt
2400
gttgtgagag cccattgatt tcaaaggga tgagtctctg atagttgata ctttctcgag
2460
gataaaaagt tattggaatc tccaatgtgt ttcttggtt taccacatca acacgggagt
2520
tcacctcgag gtgagtgggt ttggtgtaca gacaatctat gtcataaggt gtttcttctt
2580
tgttggtaat taccagggtt tgtttgtatg ggggcacccc agcttgatag ataaagcagg
2640

tcccaaagtt gtagctgggtg aaggagaaat ggatagccgg gctcacagca cagcctgaga
 2700
 tgttgccacat aaatggttga ccatgggtga tcttgattat gagttccagg tctgtcaaga
 2760
 cacacttctt taatggttga aaagacaggg tggcatgtac actctgtcct acatccacag
 2820
 tgctgtcgat gggtgaaaaat tccaagtact gcagcaaggt tttggagcca cacagctgtg
 2880
 cctggaagct gaaggtgaac tttccagtgt tgataaagtt gaattcacac tggacacatt
 2940
 catttaactc cacctcatag aagttgatga tgttagtctg gttgggagtc aacagagtga
 3000
 tggagcctgt cctgtccttg cacttgatct ccacattcat agtgtagccc tcggccttga
 3060
 catttaatgt cacaggggtg actttctttt ccacattgca gatcaaatta aagttcacat
 3120
 ctcttctctg ctttgggtgt aagaaaatat caattgggaa cctggacagt ggtgggatcc
 3180
 agcc
 3184

<210> 2898

<211> 933

<212> PRT

<213> Homo sapiens

<400> 2898

Met Asn Val Glu Ile Lys Cys Lys Asp Arg Thr Gly Ser Ile Thr Leu
 1 5 10 15
 Leu Thr Pro Asn Gln Thr Asn Ile Ile Asn Phe Tyr Glu Val Glu Leu
 20 25 30
 Asn Glu Cys Val Gln Cys Glu Phe Asn Phe Ile Asn Thr Gly Lys Phe
 35 40 45
 Thr Phe Ser Phe Gln Ala Gln Leu Cys Gly Ser Lys Thr Leu Leu Gln
 50 55 60
 Tyr Leu Glu Phe Ser Pro Ile Asp Ser Thr Val Asp Val Gly Gln Ser
 65 70 75 80
 Val His Ala Thr Leu Ser Phe Gln Pro Leu Lys Lys Cys Val Leu Thr
 85 90 95
 Asp Leu Glu Leu Ile Ile Lys Ile Ser His Gly Pro Thr Phe Met Cys
 100 105 110
 Asn Ile Ser Gly Cys Ala Val Ser Pro Ala Ile His Phe Ser Phe Thr
 115 120 125
 Ser Tyr Asn Phe Gly Thr Cys Phe Ile Tyr Gln Ala Gly Met Pro Pro
 130 135 140
 Tyr Lys Gln Thr Leu Val Ile Thr Asn Lys Glu Glu Thr Pro Met Ser
 145 150 155 160
 Ile Asp Cys Leu Tyr Thr Asn Thr Thr His Leu Glu Val Asn Ser Arg
 165 170 175
 Val Asp Val Val Lys Pro Gly Asn Thr Leu Glu Ile Pro Ile Thr Phe
 180 185 190
 Tyr Pro Arg Glu Ser Ile Asn Tyr Gln Glu Leu Ile Pro Phe Glu Ile
 195 200 205
 Asn Gly Leu Ser Gln Gln Thr Val Glu Ile Lys Gly Lys Gly Thr Glu

210	215	220
Met Lys Ile Leu Val	Leu Asp Pro Ala Asn Arg	Ile Val Lys Leu Gly
225	230	235
Ala Val Leu Pro Gly Gln Val Val Lys Arg Thr Val Ser Ile Met Asn	240	245
245	250	255
Asn Ser Leu Ala Gln Leu Thr Phe Asn Gln Ser Ile Leu Phe Thr Ile	260	265
260	265	270
Pro Glu Leu Gln Glu Pro Lys Val Leu Thr Leu Ala Pro Phe His Asn	275	280
275	280	285
Ile Thr Leu Lys Pro Lys Glu Val Cys Lys Leu Glu Val Ile Phe Ala	290	295
290	295	300
Pro Lys Lys Arg Val Pro Pro Phe Ser Glu Glu Val Phe Met Glu Cys	305	310
305	310	315
Met Gly Leu Leu Arg Pro Leu Phe Leu Leu Ser Gly Cys Cys Gln Ala	320	325
320	325	330
Leu Glu Ile Ser Leu Asp Gln Glu His Ile Pro Phe Gly Pro Val Val	335	340
335	340	345
Tyr Gln Thr Gln Ala Thr Arg Arg Ile Leu Met Leu Asn Thr Gly Asp	350	355
350	355	360
Val Gly Ala Arg Phe Lys Trp Asp Ile Lys Lys Phe Glu Pro His Phe	365	370
365	370	375
Ser Ile Ser Pro Glu Glu Gly Tyr Ile Thr Ser Gly Met Glu Val Ser	380	385
380	385	390
Phe Glu Val Thr Tyr His Pro Thr Glu Val Gly Lys Glu Ser Leu Cys	395	400
395	400	405
Lys Asn Ile Leu Cys Tyr Ile Gln Gly Gly Ser Pro Leu Ser Leu Thr	410	415
410	415	420
Leu Ser Gly Val Cys Val Gly Pro Ala Val Lys Glu Val Val Asn	425	430
425	430	435
Phe Thr Cys Gln Val Arg Ser Lys His Thr Gln Thr Ile Leu Leu Ser	440	445
440	445	450
Asn Arg Thr Asn Gln Thr Trp Asn Leu His Pro Ile Phe Glu Gly Glu	455	460
455	460	465
His Trp Glu Gly Pro Glu Phe Ile Thr Leu Glu Ala His Gln Gln Asn	470	475
470	475	480
Lys Pro Tyr Glu Ile Thr Tyr Arg Pro Arg Thr Met Asn Leu Glu Asn	485	490
485	490	495
Arg Lys His Gln Gly Thr Leu Phe Phe Pro Leu Pro Asp Gly Thr Gly	500	505
500	505	510
Trp Leu Tyr Ala Leu His Gly Thr Ser Glu Leu Pro Lys Ala Val Ala	515	520
515	520	525
Asn Ile Tyr Arg Glu Val Pro Cys Lys Thr Pro Tyr Thr Glu Leu Leu	530	535
530	535	540
Asn 545	540	545
Pro Ile Thr Asn Trp Leu Asn Lys Pro Gln Arg Phe Arg Val Ile Val	550	555
550	555	560
Glu Ile Leu Lys Pro Glu Lys Pro Asp Leu Ser Ile Thr Met Lys Gly	565	570
565	570	575
Leu Asp Tyr Ile Asp Val Leu Ser Gly Ser Lys Lys Asp Tyr Lys Leu	580	585
580	585	590
Asn Phe Phe Ser His Lys Glu Gly Thr Tyr Ala Ala Lys Val Ile Phe	595	600
595	600	605
Arg Asn Glu Val Thr Asn Glu Phe Leu Tyr Tyr Asn Val Ser Phe Arg	610	615
610	615	620
Val Ile Pro Ser Gly Ile Ile Lys Thr Ile Glu Met Val Thr Pro Val	625	630
625	630	635
	635	640

645 650 655
 Arg Gln Val Ala Ser Ala Ser Ile Lys Leu Glu Asn Pro Leu Pro Tyr
 660 665 670
 Ser Val Thr Phe Ser Thr Glu Cys Arg Met Pro Asp Ile Ala Leu Pro
 675 680 685
 Ser Gln Phe Val Val Pro Ala Asn Ser Glu Gly Thr Phe Ser Phe Glu
 690 695 700
 Phe Gln Pro Leu Lys Ala Gly Glu Thr Phe Gly Arg Leu Thr Leu His
 705 710 715 720
 Asn Thr Asp Leu Gly Tyr Tyr Gln Tyr Glu Leu Tyr Leu Lys Ala Thr
 725 730 735
 Pro Ala Leu Pro Glu Lys Pro Val His Phe Gln Thr Val Leu Gly Ser
 740 745 750
 Ser Gln Ile Ile Leu Val Lys Phe Ile Asn Tyr Thr Arg Gln Arg Thr
 755 760 765
 Glu Tyr Tyr Cys Arg Thr Asp Cys Thr Asp Phe His Ala Glu Lys Leu
 770 775 780
 Ile Asn Ala Ala Pro Gly Gly Gln Gly Gly Thr Glu Ala Ser Val Glu
 785 790 795 800
 Val Leu Phe Glu Pro Ser His Leu Gly Glu Thr Lys Gly Ile Leu Ile
 805 810 815
 Leu Ser Ser Leu Ala Gly Gly Glu Tyr Ile Ile Pro Leu Phe Gly Met
 820 825 830
 Ala Leu Pro Pro Lys Pro Gln Gly Pro Phe Ser Ile Arg Ala Gly Tyr
 835 840 845
 Ser Ile Ile Ile Pro Phe Lys Asn Val Phe Tyr His Met Val Thr Phe
 850 855 860
 Ser Ile Ile Val Asp Asn Pro Ala Phe Thr Ile Arg Ala Gly Glu Ser
 865 870 875 880
 Val Arg Pro Lys Lys Ile Asn Asn Ile Thr Val Ser Phe Glu Gly Asn
 885 890 895
 Pro Ser Gly Ser Lys Thr Pro Ile Thr Thr Lys Leu Thr Val Ser Cys
 900 905 910
 Pro Pro Gly Glu Gly Ser Glu Thr Gly Val Lys Trp Val Tyr Tyr Leu
 915 920 925
 Lys Gly Ile Thr Leu
 930

<210> 2899

<211> 876

<212> DNA

<213> Homo sapiens

<400> 2899

ngcgctgac gggcccgcg tctggcgctg agtgcaggga agtggagtat ttgctggggc
 60
 gggtaccatg gacgtggcg aactctctgag ctaccaggag ggtcattgag aggagcagta
 120
 gagctgcact gccgaatgtc gtagccacta gccacatagg ctgttgattg ctgaaatgt
 180
 gactagtctg aattgagaaa tactcccaac agggggcaca aacgtccccg ggaatgatgag
 240
 gaagaagaac tgaagacacg ccgcaagcaa actgggtactc gagaacgcgg ccgctatcgg
 300

gaagaagaaa tgactgtggt ggaggaagcg gatgatgaca aaaaaaggct gctgcagatt
 360
 attgacagag atggggaaga ggaagaggaa gaggaggagc cattggatga aagctcagtg
 420
 aagaaaaatga tcttcacatt tgaagaagaga tcatataaaa accaagaatt gcggattaag
 480
 ttccagaca atccagagaa gttcatggaa tccgagctgg acctaaatga catcattcag
 540
 gagatgcacg tgggtggccac catgccagac ctgtaccacc ttctgggtgga gctgaatgct
 600
 gtacagtcgc ttctcggtt gctcgagac gataatacag atgtgtccat agctgtggtc
 660
 gatttgcttc aggaattaac agatatagac accctccatg agagtgaaga gggagcagaa
 720
 gtgctcatcg atgctctggt ggatgggcag gtggtagcac tgctggtaca gaatctggag
 780
 cgctggatg agtctgtgaa agaggaggca gatggcgctc acaacactct ggctattgtg
 840
 gaaaacatgg ctgagttccg gcctgagatg tgtaca
 876

<210> 2900

<211> 189

<212> PRT

<213> Homo sapiens

<400> 2900

Met	Thr	Val	Val	Glu	Ala	Asp	Asp	Asp	Lys	Lys	Arg	Leu	Leu	Gln
1			5					10					15	
Ile	Ile	Asp	Arg	Asp	Gly	Glu	Glu	Glu	Glu	Glu	Glu	Pro	Leu	
			20				25					30		
Asp	Glu	Ser	Ser	Val	Lys	Lys	Met	Ile	Leu	Thr	Phe	Glu	Lys	Ser
			35				40				45			
Tyr	Lys	Asn	Gln	Glu	Leu	Arg	Ile	Lys	Phe	Pro	Asp	Asn	Pro	Glu
			50			55				60				Lys
Phe	Met	Glu	Ser	Glu	Leu	Asp	Leu	Asn	Asp	Ile	Ile	Gln	Glu	Met
				70					75				80	His
Val	Val	Ala	Thr	Met	Pro	Asp	Leu	Tyr	His	Leu	Leu	Val	Glu	Leu
				85					90				95	Asn
Ala	Val	Gln	Ser	Leu	Leu	Gly	Leu	Leu	Gly	His	Asp	Asn	Thr	Asp
			100				105						110	Val
Ser	Ile	Ala	Val	Val	Asp	Leu	Leu	Gln	Glu	Leu	Thr	Asp	Ile	Asp
			115				120					125		Thr
Leu	His	Glu	Ser	Glu	Glu	Gly	Ala	Glu	Val	Leu	Ile	Asp	Ala	Leu
			130			135					140			Val
Asp	Gly	Gln	Val	Val	Ala	Leu	Leu	Val	Gln	Asn	Leu	Glu	Arg	Leu
			145		150					155				Asp
Glu	Ser	Val	Lys	Glu	Glu	Ala	Asp	Gly	Val	His	Asn	Thr	Leu	Ala
			165					170					175	Ile
Val	Glu	Asn	Met	Ala	Glu	Phe	Arg	Pro	Glu	Met	Cys	Thr		
			180					185						

<210> 2901

<211> 756

<212> DNA

<213> Homo sapiens

<400> 2901

acgcgtcgga gaggggcttt cgactttttt gagaagcaag accaagtggc agaagagggg
 60
 ccgcccgtcc agagcctgaa gggcgaggat gctgaggaat ccttgaggga ggaggaggcg
 120
 ctggaccctc tgggcattat gcgctccaag aagcccaaga aacatcccaa agtggccgtg
 180
 aaagccaagc cctcgccccg gctcaccatc tttagcaggg aggtggaccc tgatgagggg
 240
 ctctttggcc cgggcaggaa gctgtctcca caggaccctt cggaggacgt gtcattccatg
 300
 gacccctcga agctatttga tgatcctgac ctccgggggg ccattccccct ggggtgactcc
 360
 ctctctctgc cggcgccctg tgagagtggg gggcccccac ccagcctcag ccacaggggc
 420
 gcctccaagg aactgttcag gtaccacctg tccccagcgg cgcttgggcca gctctgagag
 480
 tgcctgtgac agagccaagg gcccggtcca ttgccagtc tcagccccag cctcctctga
 540
 ggggagggacc ccaggcctgt gaaaagtaga agcctgtggg tgcacattgg gtgagagggg
 600
 gtgaaggggg ctgagggggg gmaantcgc ccagggtctc tcagctagtt ccagaaagag
 660
 agaactttgt gtgcacaacc agtctttctt ttcacaatca tattttaaca gtttatgtaa
 720
 agaataatta aattatataa ttgccagggc aaaaaa
 756

<210> 2902

<211> 158

<212> PRT

<213> Homo sapiens

<400> 2902

Thr Arg Arg Arg Gly Ala Phe Asp Phe Phe Glu Lys Gln Asp Gln Val
 1 5 10 15
 Ala Glu Glu Gly Pro Pro Val Gln Ser Leu Lys Gly Glu Asp Ala Glu
 20 25 30
 Glu Ser Leu Glu Glu Glu Ala Leu Asp Pro Leu Gly Ile Met Arg
 35 40 45
 Ser Lys Lys Pro Lys Lys His Pro Lys Val Ala Val Lys Ala Lys Pro
 50 55 60
 Ser Pro Arg Leu Thr Ile Phe Asp Glu Glu Val Asp Pro Asp Glu Gly
 65 70 75 80
 Leu Phe Gly Pro Gly Arg Lys Leu Ser Pro Gln Asp Pro Ser Glu Asp
 85 90 95
 Val Ser Ser Met Asp Pro Leu Lys Leu Phe Asp Asp Pro Asp Leu Gly
 100 105 110
 Gly Ala Ile Pro Leu Gly Asp Ser Leu Leu Leu Pro Ala Ala Cys Glu
 115 120 125
 Ser Gly Gly Pro Thr Pro Ser Leu Ser His Arg Asp Ala Ser Lys Glu

130 135 140
 Leu Phe Arg Tyr His Leu Ser Pro Ala Ala Leu Gly Gln Leu
 145 150 155
 <210> 2903
 <211> 542
 <212> DNA
 <213> Homo sapiens
 <400> 2903
 aagcttatgt tctctcttta tccaagcctt cgacacctcg gactggggaa ggagggaaatc
 60
 accacctatt tctctgggaa ttgtaccatg gaagatgcca aattggccca ggactttctg
 120
 gactcacaga acctcagtgc ctacaacacc cggctcttca aagaggtcga tggagaaggg
 180
 aagccctact acgaggtgcg gctggcttct gtgcttggtc agagcccttc cctggactct
 240
 gaggtgactt ccaagctgaa gagctatgaa ttccggggaa gccctttcca ggtgaccctg
 300
 ggggactacg cgcccatcct ccagaagggt gtggagcagc tggagaaagc caaggcctat
 360
 gcagccaaca gccaccaggg gcagatgctg gcccagtata tagagagctt caccaggggc
 420
 tccatcgagg cccacaagag gggctcccg cttctggatcc aggacaaagg ccccatcgt
 480
 ggagagggtga ggcgccagct ccacccacc tgcctctccc tgcctgcccc tcttcaacgc
 540
 gt
 542
 <210> 2904
 <211> 180
 <212> PRT
 <213> Homo sapiens
 <400> 2904
 Lys Leu Met Phe Ser Leu Tyr Pro Arg Leu Arg His Leu Gly Leu Gly
 1 5 10 15
 Lys Glu Gly Ile Thr Tyr Phe Ser Gly Asn Cys Thr Met Glu Asp
 20 25 30
 Ala Lys Leu Ala Gln Asp Phe Leu Asp Ser Gln Asn Leu Ser Ala Tyr
 35 40 45
 Asn Thr Arg Leu Phe Lys Glu Val Asp Gly Glu Gly Lys Pro Tyr Tyr
 50 55 60
 Glu Val Arg Leu Ala Ser Val Leu Gly Ser Glu Pro Ser Leu Asp Ser
 65 70 75 80
 Glu Val Thr Ser Lys Leu Lys Ser Tyr Glu Phe Arg Gly Ser Pro Phe
 85 90 95
 Gln Val Thr Arg Gly Asp Tyr Ala Pro Ile Leu Gln Lys Val Val Glu
 100 105 110
 Gln Leu Glu Lys Ala Lys Ala Tyr Ala Ala Asn Ser His Gln Gly Gln
 115 120 125
 Met Leu Ala Gln Tyr Ile Glu Ser Phe Thr Gln Gly Ser Ile Glu Ala

130		135		140
His Lys Arg Gly Ser Arg Phe Trp Ile Gln Asp Lys Gly Pro His Arg				
145	150	155	160	
Gly Glu Val Arg Arg Gln Leu His Pro Thr Cys Pro Leu Leu Pro Ala				
	165	170	175	
Pro Pro Ser Arg				
180				

<210> 2905

<211> 814

<212> DNA

<213> Homo sapiens

<400> 2905

```

ttttcatatc ccagttttgt ttatttggga acatttactc ttgtggataa cagaatacca
60
gtcacagaat ctttcttctg tattacaaat tctgccactt tgtttcagaa ctgggtatca
120
ggattcctcc tctgcccagg ttctgtctgt ccccccaaaa gaaagacatg tagctgggca
180
tggtgggtaca catctgttgt ccagttact caggaggctg aggcaggagg attgcttgag
240
cccagtggtt caaggttgca gtgggctgtg aatgctctac ttactccag cctgagcaac
300
agagcaagac ccggccctc ttctcgactt tctatccctc ctctcaaca ccttttctct
360
ctggaaatgg gcttcggggt ggttaaccaa gcccagggaa acttgctggt cccagcatct
420
tccgtccgct gcaggaggag cacacgcccc cggcccggtg cagcaagacg cgagaaagcg
480
gccacgccgg gcgtccggga gctgaggctg gagggcgctt ggcaggcagg gcggggccca
540
ggcggcgggg gtgcttatga ccggcgctgg ggggaacttc tggacgtcaa ggggccacta
600
taaaagcgca cagtcttgag ccttcgctct tcacctaatg cagtgcgcgc ccttcgcaaa
660
gcctctgtgg aggtaaccat tgggggttgc cctccaaatc caggaatgca cctcaaaaat
720
gctctacac cgtaagaccg tgcctctcaa tgcaaagggg actgtgcggc gaggcaccga
780
caagccgtag ccttgagacc actcaaagcc tgca
814

```

<210> 2906

<211> 200

<212> PRT

<213> Homo sapiens

<400> 2906

Phe Ser Tyr Pro Ser Phe Val Tyr Leu Gly Thr Phe Thr Leu Val Asp				
1	5	10	15	
Asn Arg Ile Pro Val Thr Arg Ser Phe Phe Cys Ile Thr Asn Ser Ala				
20	25	30		
Thr Leu Phe Gln Asn Trp Val Ser Gly Phe Leu Leu Cys Pro Gly Phe				

```

          35              40              45
Cys Cys Pro Pro Lys Arg Lys Thr Cys Ser Trp Ala Trp Trp Tyr Thr
 50              55              60
Ser Val Val Pro Val Thr Gln Glu Ala Glu Ala Gly Gly Leu Leu Glu
 65              70              75              80
Pro Arg Cys Ser Arg Leu Gln Trp Ala Val Asn Ala Leu Leu His Ser
          85              90              95
Ser Leu Ser Asn Arg Ala Arg Pro Arg Pro Ser Ser Arg Leu Ser Ile
          100              105              110
Pro Pro Pro Gln His Pro Phe Leu Leu Glu Met Gly Phe Gly Val Val
          115              120              125
Asn Gln Ala Gln Gly Asn Leu Arg Gly Pro Ala Ser Ser Val Arg Cys
          130              135              140
Arg Arg Ser Thr Arg Pro Arg Pro Gly Ser Ala Arg Arg Glu Lys Ala
          145              150              155              160
Ala Thr Pro Gly Val Arg Glu Leu Arg Leu Glu Gly Ala Trp Gln Ala
          165              170              175
Gly Arg Gly Pro Gly Gly Gly Ser Ala Tyr Asp Arg Arg Trp Gly Glu
          180              185              190
Leu Leu Asp Val Lys Gly Pro Leu
          195              200

```

<210> 2907

<211> 379

<212> DNA

<213> Homo sapiens

<400> 2907

```

ntgagaccct gtctcaaaagt aaaaaattct gaaaaatgct atgaccgtga gtgaccggcc
60
atcagcaggc tgtgatctgc cgaactcat gacagcagc ctcaatgggt gggttcttaag
120
aaacagcacc ttcacttttc ccaggctgct ttccaatttc caactgtc cccaagatta
180
caaaaggcaaa ggaatttttc ccttaattgtt ggaaggctct gagactgtc caccctgggc
240
tcattacact gggaccagct ttaagcttcc ctgttcaacg cggagagctc cacagccag
300
gacgacagag catgatgatg cagcagcccc tcaaaaaccca gacaggcctt cttggcttgc
360
cctggccgat gccaccgtg
379

```

<210> 2908

<211> 113

<212> PRT

<213> Homo sapiens

<400> 2908

```

Met Thr Val Ser Asp Arg Pro Ser Ala Gly Cys Asp Leu Pro Lys Leu
 1              5              10              15
Met Thr Ala Ser Leu Asn Gly Trp Val Leu Arg Asn Ser Ile Phe Thr
 20              25              30
Phe Pro Arg Leu Leu Ser Asn Phe Gln His Cys Pro Gln Asp Tyr Lys

```


	35		40		45	
Gly	Lys	Gly	Ile	Leu	Pro	Leu
	50		55		60	
Pro	Trp	Ala	His	Tyr	Thr	Gly
65			70		75	
Arg	Arg	Ala	Pro	Gln	Pro	Arg
		85		90		95
Pro	Gln	Asn	Pro	Asp	Arg	Pro
	100		105		110	
Gly						

<210> 2909

<211> 2420

<212> DNA

<213> Homo sapiens

<400> 2909

```

ttttttttt ttttaatttat aaaatatcct ttattttatc taaggaacag tcaagcagta
60
gctttaaaaa aaaaaaaaaa gacacatttt ttgaaagata ttcttagtgt tgtgacctgg
120
cattgggccc ctgtgagcgg gacggtggct gagaccgcct gctgtggcct tgcgagttct
180
ctgcactcac tggcaggggt ttggtgggaa acggggaagc ttggcatgg ttctgtccag
240
ttgcttataa tcaagaataa tgagttttga ggtttataaa gacgagaagt aacatttata
300
cggctggcat ttgacaaaag attgctgata atatactcat tccaggaagt gtaaaaaatgc
360
tttaaaggaa tgataatttg tactttactgt ttatggggac tagatatatt agaattatag
420
catcattatg gggacatagt gttccctat aaattcagaa attctctggt tgatgtaaaa
480
tcatacttcc tgggttttact taattagtaa agaaaataat aaattagagt aacatttagt
540
caggtagagt tactcctttt tcccctcttt tattaataaa ttttttttt agcacaatca
600
tttaccctaa aagagagttt gagaatgttc gagaatctct accactcggg aacctgctg
660
gctgttatat cagaaaaatc cataaacata cacagcagcg agctgttttc acaagacttc
720
ctgctaataa acacaacact ttctctctca ctcatgagg agcctcagat gccaaaacgc
780
agatgtgcca actaactata ggctcgttgc taagcagaga aacctatcaa gttgtccag
840
caaatctgat tgtacagtgg gatggcgtct gctctgcggc cttggacagg gagccactgg
900
tctgtgctgc tgtccccctga ggcaggctga agctgtgtgg ccttagaggg caggtaaaat
960
ggttctcatg ggtagaaca taagggtctt gagaaaaaat gcaaaaggtc tcatgaaat
1020
tggaggccta tgtgaatctg ttacatgga ggcatactga gatctcgttc tgtgcttagg
1080

```

tgaactgcag gtctcacgct ggctgcatga cttgggtgcc cctggctggc tgagccactg
 1140
 cctgccacct tctcatacca ttacgtgggg gtctaaagag gacatcatcc ccaaccaaag
 1200
 aatagtgaga gagaaaatcc caaacatttg agacaggggt caaaagcacc cagacgcctt
 1260
 ctgtctcttt cccagttccc atctggctag ggactgtgaa tcagaattca gaatctgtgc
 1320
 tgcctgagg ggacaggcac ccaaatgcaa taaataacac caagctcagg acccagccac
 1380
 tgaccttctc ccaccactgc tgcgggttat tctcgtatgg gaactgaagg atccaaggga
 1440
 ggaatccgtt cgcgccccaa acctccctgc acaacatcga atgcgggagt ctggctgctg
 1500
 cttctgcaca ggacagagcc tccagttctt tgcttgagag catcatttat ggcattggact
 1560
 gggaacgcaa tgtgttcaca caaatgcagc acaattgtac atcagcatct ttacaatatt
 1620
 aaaggagtca tatacaagtc tacagccatt gtacacagga tgggtgatggc tggggagccc
 1680
 cgcccaccag tctctgcag tttctccacc ggagaaactc tggggagctg tcacaaggcc
 1740
 aggggggggc catctttggg cctgtcgtgg ggcaggcagc aggtctgcaa ggactcctca
 1800
 gggccagtcc tcactggaat caggggtcaa gagcgccagg tctgcctgtg tctgggtctc
 1860
 atcggcaggc tagtgtaaca acgtgaatta aaactgtgca tattcgcatg agaaaaactg
 1920
 agctggggat ggctccctga gctggggacc tagaagacgc tgctgacaga tgggcccctt
 1980
 catggtgggg cccattctct aggtaacgtg cagccctgag gctgggtccga acgggaggag
 2040
 actttctcag cagcccaggc gccagtcac acagacagga ctggaagccc ctgggcagca
 2100
 ggtcagggtg cccggggagt gcagcctgag ccccaacgg cagcaaacgt gaaggcttca
 2160
 ggtggttaca gaatcactca gccctcaggc cccaccact ctctctccag cagccctgca
 2220
 gcacacatcc ctgcatctgt cccgagagcc ccagccctgc aggcacatcg gcttgaatgc
 2280
 caggcagctg gtccaccctg cagccatgct gcacgtctga ctgagaactg agcaccagat
 2340
 aaagaagcat tggctcctgt cagccctctc gacttttgca gttagggtg catccattta
 2400
 aatatgtaga aaaatagcca
 2420

<210> 2910

<211> 153

<212> PRT

<213> Homo sapiens

<400> 2910

Met Gly Thr Glu Gly Ser Lys Gly Gly Ile Arg Ser Ala Pro Lys Pro

1	5					10					15				
Pro	Cys	Thr	Thr	Ser	Asn	Ala	Gly	Val	Trp	Leu	Leu	Leu	His	Arg	
			20					25					30		
Thr	Glu	Pro	Pro	Val	Phe	Cys	Leu	Arg	Ala	Ser	Phe	Met	Ala	Trp	
		35					40					45			
Gly	Asn	Ala	Met	Cys	Ser	His	Lys	Cys	Thr	Thr	Ile	Val	His	Gln	
	50					55					60				
Leu	Tyr	Asn	Ile	Lys	Gly	Val	Ile	Tyr	Lys	Ser	Thr	Ala	Ile	Val	
65					70				75					80	
Arg	Met	Val	Met	Ala	Gly	Gly	Pro	Arg	Pro	Pro	Val	Leu	Cys	Ser	
			85					90					95		
Ser	Thr	Gly	Glu	His	Leu	Gly	Ser	Cys	His	Lys	Ala	Arg	Gly	Pro	
		100						105					110		
Ser	Leu	Gly	Leu	Ser	Trp	Gly	Arg	Gln	Gln	Val	Cys	Lys	Asp	Ser	
		115					120					125			
Gly	Pro	Val	Leu	Thr	Gly	Ile	Arg	Gly	Gln	Glu	Arg	Gln	Val	Cys	
	130					135					140				
Cys	Leu	Gly	Leu	Ile	Gly	Arg	Leu	Val							
145					150										

```
<210> 2911
<211> 1327
<212> DNA
<213> Homo sapiens
```

400> 2911
60 ggcgaaggcg gcaagctctg cteccccctgg tgaagaagct gccctgggct tgcctgctcta
120 ggtgtctccag acatgtctga ggtgaagagc cgggaagaagt cggggcccaa gggagccctc
180 ctgcgcggagc cggggaagcg gagcgaggcg gggaagaccc cctgtggcccg gagcagcggga
240 ggcgggggctt gggcagagccc ccgaacgtgc ctgagcctgc tgcctgtctgg gagctgtcctg
300 ggccttgccct ggtttgtatt tcagcagctca gaaaaatttg caaagtgga aaaccaatac
360 cagttactga aactagaaac caatgaattc caacaacttc aaagtataat cagtttaatt
420 tcagaaaagt ggcagaaatc tgaagctatc atggaacaat tgaagtcttt tcaataaatt
480 gctcatctaa agcgtctaca ggaagaattt aatgaggtaa aaacttggtc caataggata
540 actgaaaaaa aggatatact gaacaacagt ctgacgcgcg tttctcaaga cattacaaaa
600 gtacagcaaa gtacaacttc catggcaaaa gatgttggtc tcaagattac aagtgtaaaa
660 acagatatac gacggatttc aggtttagta actgatgtaa tatcattgac agattctctg
720 caagaactag aaaataaaaat agagaagta gaaaaaata cagtaaaaaa tataggtgat
780 cttctttcaa gcagttatga tcgaacagca acgctccgaa agacagcatt tgaaaaattca
840 caagaatta actctgttaa gaagcgccta accgaactaa agagtgaact cgacaaacat

acagatagat ttctaagctt agaaggtgac agagccaaag ttctgaagac agtgactttt
 900
 gcaaatgatac taaaaccaa ggtgtataat ctaagaaggg acttttcccg tttagaacca
 960
 ttgtataatg atttaacact acgcattggg agatttggtta ccgactttact acaagagag
 1020
 aaagaaattg ctttcttaag tgaaaaaata tctaatttaa caatagtcca agctgagatt
 1080
 aaggatatta aagatgaaat agcacacatt tcagatatga attagtttga cattatttgag
 1140
 attagactaa ggtaattttt ttaatgggac ctctcatgag aagactggta aatcaaaaat
 1200
 aatgatattt tggagcaaaa gtcattttat attaatcctt attttgtaca gtaaaaaata
 1260
 aactttaaaa caggttgatt ttccaaaata aatatgctaa aacctatttt tgcaacttta
 1320
 aaaaaaa
 1327

<210> 2912

<211> 350

<212> PRT

<213> Homo sapiens

<400> 2912

Met Ser Glu Val Lys Ser Arg Lys Lys Ser Gly Pro Lys Gly Ala Pro
 1 5 10 15
 Ala Ala Glu Pro Gly Lys Arg Ser Glu Gly Gly Lys Thr Pro Val Ala
 20 25 30
 Arg Ser Ser Gly Gly Gly Gly Trp Ala Asp Pro Arg Thr Cys Leu Ser
 35 40 45
 Leu Leu Ser Leu Gly Thr Cys Leu Gly Leu Ala Trp Phe Val Phe Gln
 50 55 60
 Gln Ser Glu Lys Phe Ala Lys Val Glu Asn Gln Tyr Gln Leu Leu Lys
 65 70 75 80
 Leu Glu Thr Asn Glu Phe Gln Gln Leu Gln Ser Lys Ile Ser Leu Ile
 85 90 95
 Ser Glu Lys Trp Gln Lys Ser Glu Ala Ile Met Glu Gln Leu Lys Ser
 100 105 110
 Phe Gln Ile Ile Ala His Leu Lys Arg Leu Gln Glu Glu Ile Asn Glu
 115 120 125
 Val Lys Thr Trp Ser Asn Arg Ile Thr Glu Lys Gln Asp Ile Leu Asn
 130 135 140
 Asn Ser Leu Thr Thr Leu Ser Gln Asp Ile Thr Lys Val Asp Gln Ser
 145 150 155 160
 Thr Thr Ser Met Ala Lys Asp Val Gly Leu Lys Ile Thr Ser Val Lys
 165 170 175
 Thr Asp Ile Arg Arg Ile Ser Gly Leu Val Thr Asp Val Ile Ser Leu
 180 185 190
 Thr Asp Ser Val Gln Glu Leu Glu Asn Lys Ile Glu Lys Val Glu Lys
 195 200 205
 Asn Thr Val Lys Asn Ile Gly Asp Leu Leu Ser Ser Ser Ile Asp Arg
 210 215 220
 Thr Ala Thr Leu Arg Lys Thr Ala Ser Glu Asn Ser Gln Arg Ile Asn

```

225                230                235                240
Ser Val Lys Lys Thr Leu Thr Glu Leu Lys Ser Asp Phe Asp Lys His
                245                250                255
Thr Asp Arg Phe Leu Ser Leu Glu Gly Asp Arg Ala Lys Val Leu Lys
                260                265                270
Thr Val Thr Phe Ala Asn Asp Leu Lys Pro Lys Val Tyr Asn Leu Lys
                275                280                285
Lys Asp Phe Ser Arg Leu Glu Pro Leu Val Asn Asp Leu Thr Leu Arg
                290                295                300
Ile Gly Arg Leu Val Thr Asp Leu Leu Gln Arg Glu Lys Glu Ile Ala
305                310                315                320
Phe Leu Ser Glu Lys Ile Ser Asn Leu Thr Ile Val Gln Ala Glu Ile
                325                330                335
Lys Asp Ile Lys Asp Glu Ile Ala His Ile Ser Asp Met Asn
                340                345                350

```

<210> 2913

<211> 361

<212> DNA

<213> Homo sapiens

<400> 2913

```

gtcaccagg gcatcgtgaa cgaagtgcgc cagtcacatgc agctgatgct gagccagctg
60
atccagcaac tgaggaccaa catccagctt cctgcctgcc tccgtgtcat tggctacctg
120
cggcgcatgg acgtcttccac tgaggctgag ttgaggggtga agtttcttca gggccgagat
180
gcttggtctcc ggtccatcct gactgccatt cctaatgatg atccctattt ccatattaca
240
aaaaccatcg agggcctccc gtgtccatct ctttgatata atcaccagat acggggccat
300
cttctcagac gaggacccac tgctgcccc tgccatgggt gaggacactg ggaatgagagt
360
g
361

```

<210> 2914

<211> 112

<212> PRT

<213> Homo sapiens

<400> 2914

```

Met Ala Gly Gly Ser Ser Gly Ser Ser Ser Glu Lys Met Ala Arg Tyr
1          5          10          15
Trp Val Met Ile Ser Lys Arg Trp Thr Arg Glu Ala Leu Asp Gly Phe
20          25          30
Cys Asn Met Glu Ile Gly Ile Ile Ile Arg Asn Gly Ser Gln Asp Gly
35          40          45
Pro Glu Pro Ser Ile Ser Gly Leu Lys Lys Leu His Pro Gln Leu Ser
50          55          60
Leu Ser Glu Asp Val His Ala Pro Gln Val Ala Asn Asp Thr Glu Ala
65          70          75          80
Gly Arg Lys Leu Asp Val Gly Pro Gln Leu Leu Asp Gln Leu Ala Gln

```

	85	90	95
His Gln Leu His Gly Leu Ala His Phe Val His Asp Ala Leu Asp Asp			
	100	105	110
<210> 2915			
<211> 1782			
<212> DNA			
<213> Homo sapiens			
<400> 2915			
caagaggatc accttaaaca cttagaacc ctcgaaaaa cattagaaaa aatggagaga			
60			
caaaaaaggc agcagcaggc agcacagata agactgatcc aagagggtga actcaagct			
120			
tcagctgcgc atagagaaat ataacttactt agaacttccc ttcattcgaga aagagaacaa			
180			
gcgcaacaac ttcattcaact tcttgcatcg aaagaacagg aacacaggaa ggaacttgaa			
240			
acaagggagt tttttactga tgcctgacttc caggatgcct tagctaaaga aatagccaaa			
300			
gaagagaaaa agcatgagca aatgataaaa gaataccaag agaaaattga cgtgttaagc			
360			
cagcagtata tggattttaga aaatgaattc cgtattgctt taactgttga agccagaaga			
420			
tttcaagatg ttaaagatgg tttgaaaaat gttgcaactg agttagcaaa gagcaaacat			
480			
gctcttattt gggctcaacg aaaaagaaat gactcttctt ctttaattaa agatctgacc			
540			
tgtatggtaa aggaacaaaa aacaaaactg gcagaagttt cttaaattgaa acaagaaaaa			
600			
gcagcaaat tacagaatca aatcaacacc cttgaaattt taattgaaga tgacaagcag			
660			
aagagtattc aaatagaact tctcaagcac gaaaaagtc agcttatttc tgagctagca			
720			
gccaaaggaat cactaatatt tggtttaagg acagaaagaa agtatgggg acatgagctg			
780			
gcacaacaag gatcttctct agcccaaaat cgtggaaaaa tggagggtca aattgagagt			
840			
ttatctagag agaattgaat tctgcgaaag acaaatgaaa gtgatagtga tgcattaaga			
900			
ataaagtgc aaatcataga cgaccaaact gaaactatta gaaaattaaa agattgttta			
960			
caagaaaaag atgaacacat caaaagatta caagaaaaa tcacagaaat agaaaaatgc			
1020			
actcaagaac aacttgatga aaaatcttca caactggatg aggtacttga gaagtggaa			
1080			
aggcacaatg aaagaaaaa aaaactaaaa caacagttag aaggaaagga agtagaactt			
1140			
gaagaaatca gaaaagctta cagtacactg aatcggaagt ggcattgataa agggagaactt			
1200			
ctatgtcatc ttgaaacaca agtaaaagaa gtgaaagaaa aattgaaaa caaggaaaa			
1260			
aaacttaag cggaagagaa caaaagtatt gaactacaaa agaattgcaat ggaaaaaact			
1320			

catagtatgg atgatgcctt taaaagacaa gttgatgcaa ttgttgaagc tcatcaagct
 1380
 gaaatagcac agctggccaa tgaaaagcag aagtgtattg attctgcaaa tttaaaggctc
 1440
 catcaaaattg aaaaagaaat gcgtgaactt ttggaagaaa catgcaagaa caaaaaaaca
 1500aaattaagca acttgctttt gctttaaatg aaattcagca agatatgtga 1560
 tgggtctgag aatgaattta attgaaatag accagcagac ctattgtaaa aatgattaaa
 1620
 tattgttaata gtatgaactg ctatgacttt gaaatgtctc tttctatâca tttcattatg
 1680
 aatatatttt taaagacttt tgatcaagta tttattaatt gtataggttt tttataataa
 1740
 attgttgaca attttgtcta ttagaaaaaa ctaaaaaaa aa
 1782

<210> 2916

<211> 519

<212> PRT

<213> Homo sapiens

<400> 2916

Gln	Glu	Asp	His	Leu	Lys	His	Leu	Arg	Thr	Leu	Glu	Lys	Thr	Leu	Glu
1			5						10				15		
Lys	Met	Glu	Arg	Gln	Lys	Arg	Gln	Gln	Ala	Ala	Gln	Ile	Arg	Leu	
		20					25					30			
Ile	Gln	Glu	Val	Glu	Leu	Lys	Ala	Ser	Ala	Ala	Asp	Arg	Glu	Ile	Tyr
		35					40					45			
Leu	Leu	Arg	Thr	Ser	Leu	His	Arg	Glu	Arg	Glu	Gln	Ala	Gln	Gln	Leu
		50				55				60					
His	Gln	Leu	Leu	Ala	Leu	Lys	Glu	Gln	Glu	His	Arg	Lys	Glu	Leu	Glu
		65			70				75					80	
Thr	Arg	Glu	Phe	Phe	Thr	Asp	Ala	Asp	Phe	Gln	Asp	Ala	Leu	Ala	Lys
			85						90				95		
Glu	Ile	Ala	Lys	Glu	Glu	Lys	Lys	His	Glu	Gln	Met	Ile	Lys	Glu	Tyr
			100					105				110			
Gln	Glu	Lys	Ile	Asp	Val	Leu	Ser	Gln	Gln	Tyr	Met	Asp	Leu	Glu	Asn
		115				120					125				
Glu	Phe	Arg	Ile	Ala	Leu	Thr	Val	Glu	Ala	Arg	Arg	Phe	Gln	Asp	Val
		130				135					140				
Lys	Asp	Gly	Phe	Glu	Asn	Val	Ala	Thr	Glu	Leu	Ala	Lys	Ser	Lys	His
				145		150			155					160	
Ala	Leu	Ile	Trp	Ala	Gln	Arg	Lys	Glu	Asn	Glu	Ser	Ser	Ser	Leu	Ile
				165				170						175	
Lys	Asp	Leu	Thr	Cys	Met	Val	Lys	Glu	Gln	Lys	Thr	Lys	Leu	Ala	Glu
			180					185					190		
Val	Ser	Lys	Leu	Lys	Gln	Glu	Thr	Ala	Ala	Asn	Leu	Gln	Asn	Gln	Ile
			195				200					205			
Asn	Thr	Leu	Glu	Ile	Leu	Ile	Glu	Asp	Asp	Lys	Gln	Lys	Ser	Ile	Gln
		210				215					220				
Ile	Glu	Leu	Leu	Lys	His	Glu	Lys	Val	Gln	Leu	Ile	Ser	Glu	Leu	Ala
			225			230				235				240	
Ala	Lys	Glu	Ser	Leu	Ile	Phe	Gly	Leu	Arg	Thr	Glu	Arg	Lys	Val	Trp
			245					250						255	
Gly	His	Glu	Leu	Ala	Gln	Gln	Gly	Ser	Ser	Leu	Ala	Gln	Asn	Arg	Gly

```

                260                265                270
Lys Leu Glu Ala Gln Ile Glu Ser Leu Ser Arg Glu Asn Glu Cys Leu
275                280                285
Arg Lys Thr Asn Glu Ser Asp Ser Asp Ala Leu Arg Ile Lys Cys Lys
290                295                300
Ile Ile Asp Asp Gln Thr Glu Thr Ile Arg Lys Leu Lys Asp Cys Leu
305                310                315                320
Gln Glu Lys Asp Glu His Ile Lys Arg Leu Gln Glu Lys Ile Thr Glu
325                330                335
Ile Glu Lys Cys Thr Gln Glu Gln Leu Asp Glu Lys Ser Ser Gln Leu
340                345                350
Asp Glu Val Leu Glu Lys Leu Glu Arg His Asn Glu Arg Lys Glu Lys
355                360                365
Leu Lys Gln Gln Leu Lys Gly Lys Glu Val Glu Leu Glu Glu Ile Arg
370                375                380
Lys Ala Tyr Ser Thr Leu Asn Arg Lys Trp His Asp Lys Gly Glu Leu
385                390                395                400
Leu Cys His Leu Glu Thr Gln Val Lys Glu Val Lys Glu Lys Phe Glu
405                410                415
Asn Lys Glu Lys Lys Leu Lys Ala Glu Arg Asp Lys Ser Ile Glu Leu
420                425                430
Gln Lys Asn Ala Met Glu Lys Leu His Ser Met Asp Asp Ala Phe Lys
435                440                445
Arg Gln Val Asp Ala Ile Val Glu Ala His Gln Ala Glu Ile Ala Gln
450                455                460
Leu Ala Asn Glu Lys Gln Lys Cys Ile Asp Ser Ala Asn Leu Lys Val
465                470                475                480
His Gln Ile Glu Lys Glu Met Arg Glu Leu Glu Glu Thr Cys Lys
485                490                495
Asn Lys Lys Thr Met Glu Ala Lys Ile Lys Gln Leu Ala Phe Ala Leu
500                505                510
Asn Glu Ile Gln Gln Asp Met
515

<210> 2917
<211> 2636
<212> DNA
<213> Homo sapiens

<400> 2917
ncctgcgtgt gccaccgctg gttccagccg gccatccctt cctggctgca gaagacgtac
60
aacgaggccc tggcgcggtg gcagcggnct gtgcagatgg atgagctggt gccctggggt
120
gaactgacca agcacagcac atcagcgggtg gatctatcca ctngctttgc ccagatcagc
180
cacactgccc ggcagctgga ctggccagac ccagaggagg ccttcctgat tacogtcaag
240
ttgtgtgagg acacctgtcg cctggccctg gtgtactgca gccttataaa ggcccggggc
300
cgcgagctct cttcaggcca gaaggaccaa ggccaggcag ccaacatgct gtgtgtgggt
360
gtgaatgaca tggagcagct gcggctgggt atcggaagt tgcgcgcca gctggcctgg
420

```


gaggccctgg agcagcgggt aggggccgtg ctggagcagg ggcagctgca gaacacgctg
480
catgcccagc tgcagagcgc gctggccggg ctgggccatg agatccgcac tggcgctccgc
540
accctggcgg agcagttgga ggtgggcacg gccaaagcaca tccagaaact ggtgggcgctc
600
agggagctctg tcctgcctga ggatgccatt ctgcccctga tgaagtctct ggaggtggag
660
ctttgctaca tgaacaccaa ctgggtgcag gagaacttca gcagcctcct gacctgctc
720
tggaccacaca cactcacagt gctgggtgag gcggccgcct ccagcgcgag ctcatccctg
780
gcttccaaca ggctgaagat tgccctgcag aacctggaga tctgcttcca cgctgagggc
840
tgtggcctgc caccacaggc cctgcacact gccaccttcc aggcctctga gagggaacctg
900
gagctgcagg cggcctccag ccgggaactc atccggaagt acttctgcag ccgaatccag
960
cagcaggcag aaaccacctc tgaggagctg ggggctgtga cagtcaaggc ctctaccgc
1020
gcctctgagc agaagctgcg tgtggagctg ctacgcgct ccagcctgct gcccctggac
1080
tccaatggct ccagcgaccc ctttctccag ctgaccttgg agcccaggca tgagttccct
1140
gagctggcgg ccggggagac ccagaagcac aagaaggacc ttacccatt gtttgatgag
1200
acctttgaat tcctgggtgcc tgcctgagcg tgcgcgaagg ctggggcatg cctcctgctc
1260
accgtgctgg actacgacac gctgggggcc gacgacctgg aaggcgaggc ctctctgccc
1320
ctgcctgagg tgcccgggct gactggctct gaggagcctg gtgaggtgcc tcagaccgc
1380
ctgcccctca cgtacccgcg acccaacggg gacccaatcc tgcagctgct ggagggccgg
1440
aagggtgacc gagaagccca ggtcttttgt aggcctgcgg gccacccggc caagcaggcc
1500
tcccagcatg ccttgcggcc gccaccgtag ccgtagaggt ttgcgggtgg gctgggtccc
1560
cggtggggac ttgcaagggc cttcctgtag ggtctggggc tcccccgcca catcgcgccc
1620
ctccagcctg gcctaacaact tggggagccc cagcatgcgg agtgcccaga gtgcagacct
1680
cccttgctc ccatgggtgat gggggctcag cagcgacatc tctactcccg cctccctgcc
1740
tccagccctg gctgcaatgt ctctaccaca tcccagcacc agggggagca aacctgccc
1800
ctgcccgcct ctacagaaaag ctgctgtggt gggcagggga ttgggccatc tgtctctcgg
1860
ccctggccca tctgcctcct ggccttctct ttccagccc tggggtgggg gccaggttca
1920
ctgggaccag ggctacaggc acagagtctc ctggaaaagg gagaggggac cctgccaaa
1980
atgaggctcc agctgccctg gggggagggt ggtggccatt actagagggg gcctgggtcc
2040

tctccccagg ggctgccagc atccaggcca ggaagcctgg agccaagaac cttctggctc
 2100
 tgagggagca agagctggca ggcggcaggg ctggcacaga cagacggaag cagaaggac
 2160
 agtttggctg ctgtgtctgt gcgcacgccc cctccccgga cagcacctgc cacctagaaa
 2220
 ctttcttagc aaaaaaatta ataaaaacaa atccattgtc ctcttaaaat atcctttggc
 2280
 ctacagtggg gcctggaatg cgagccaggg cggttagctt cctcctccag ccctcagggg
 2340
 actttgagta ccgccacctt ggggttagcta caaagcaggg gggtaggtgt ggaataaact
 2400
 gaggcagagg cagggttagg gtgatttttg gccgtgggct ttgaataaat tgctttacca
 2460
 ggcataccag ttctgtggtg gacaccagg acaggggacct gtctctcggg ggagcacagt
 2520
 gagcaggggc ctccccaggg tgcagggtga ggcctgaggg ctgctcttga gacagtaggg
 2580
 cgtagaggaa ctgggtcctt ccctccctg ggggggtcaaa acctgagcct gggctg
 2636

<210> 2918

<211> 509

<212> PRT

<213> Homo sapiens

<400> 2918

Xaa Cys Val Cys His Arg Trp Phe Gln Pro Ala Ile Pro Ser Trp Leu
 1 5 10 15
 Gln Lys Thr Tyr Asn Glu Ala Leu Ala Arg Val Gln Arg Xaa Val Gln
 20 25 30
 Met Asp Glu Leu Val Pro Leu Gly Glu Leu Thr Lys His Ser Thr Ser
 35 40 45
 Ala Val Asp Leu Ser Thr Xaa Phe Ala Gln Ile Ser His Thr Ala Arg
 50 55 60
 Gln Leu Asp Trp Pro Asp Pro Glu Glu Ala Phe Met Ile Thr Val Lys
 65 70 75 80
 Phe Val Glu Asp Thr Cys Arg Leu Ala Leu Val Tyr Cys Ser Leu Ile
 85 90 95
 Lys Ala Arg Ala Arg Glu Leu Ser Ser Gly Gln Lys Asp Gln Gly Gln
 100 105 110
 Ala Ala Asn Met Leu Cys Val Val Asn Asp Met Glu Gln Leu Arg
 115 120 125
 Leu Val Ile Gly Lys Leu Pro Ala Gln Leu Ala Trp Glu Ala Leu Glu
 130 135 140
 Gln Arg Val Gly Ala Val Leu Glu Gln Gly Gln Leu Gln Asn Thr Leu
 145 150 155 160
 His Ala Gln Leu Gln Ser Ala Leu Ala Gly Leu Gly His Glu Ile Arg
 165 170 175
 Thr Gly Val Arg Thr Leu Ala Glu Gln Leu Glu Val Gly Ile Ala Lys
 180 185 190
 His Ile Gln Lys Leu Val Gly Val Arg Glu Ser Val Leu Pro Glu Asp
 195 200 205
 Ala Ile Leu Pro Leu Met Lys Phe Leu Glu Val Glu Leu Cys Tyr Met

```

      210              215              220
Asn Thr Asn Leu Val Gln Glu Asn Phe Ser Ser Leu Leu Thr Leu Leu
225              230              235              240
Trp Thr His Thr Leu Thr Val Leu Val Glu Ala Ala Ala Ser Gln Arg
      245              250              255
Ser Ser Ser Leu Ala Ser Asn Arg Leu Lys Ile Ala Leu Gln Asn Leu
      260              265              270
Glu Ile Cys Phe His Ala Glu Gly Cys Gly Leu Pro Pro Lys Ala Leu
      275              280              285
His Thr Ala Thr Phe Gln Ala Leu Gln Arg Asp Leu Glu Leu Gln Ala
      290              295              300
Ala Ser Ser Arg Glu Leu Ile Arg Lys Tyr Phe Cys Ser Arg Ile Gln
305              310              315              320
Gln Gln Ala Glu Thr Thr Ser Glu Glu Leu Gly Ala Val Thr Val Lys
      325              330              335
Ala Ser Tyr Arg Ala Ser Glu Gln Lys Leu Arg Val Glu Leu Leu Ser
      340              345              350
Ala Ser Ser Leu Leu Pro Leu Asp Ser Asn Gly Ser Ser Asp Pro Phe
      355              360              365
Val Gln Leu Thr Leu Glu Pro Arg His Glu Phe Pro Glu Leu Ala Ala
      370              375              380
Arg Glu Thr Gln Lys His Lys Lys Asp Leu His Pro Leu Phe Asp Glu
      385              390              395              400
Thr Phe Glu Phe Leu Val Pro Ala Glu Pro Cys Arg Lys Ala Gly Ala
      405              410              415
Cys Leu Leu Leu Thr Val Leu Asp Tyr Asp Thr Leu Gly Ala Asp Asp
      420              425              430
Leu Glu Gly Glu Ala Phe Leu Pro Leu Arg Glu Val Pro Gly Leu Ser
      435              440              445
Gly Ser Glu Glu Pro Gly Glu Val Pro Gln Thr Arg Leu Pro Leu Thr
      450              455              460
Tyr Pro Ala Pro Asn Gly Asp Pro Ile Leu Gln Leu Leu Glu Gly Arg
      465              470              475              480
Lys Gly Asp Arg Glu Ala Gln Val Phe Val Arg Leu Arg Arg His Arg
      485              490              495
Ala Lys Gln Ala Ser Gln His Ala Leu Arg Pro Ala Pro
      500              505

```

<210> 2919

<211> 455

<212> DNA

<213> Homo sapiens

<400> 2919

```

ggatcctcct gctcactgtt taaggagggg acagagtagc tccagggtgg gagctccacg
60
tttccacagt cttctacgct catcaggggc agcgccgccc ggcacagctg gagaataata
120
aggactagct ttggagacgg gcgttggtca agcagcaggg agaggagttt ggacacacaa
180
gctggctggc tcaggatggc tttacctatg tggctccttg agagatcatt gagaagacta
240
aggacatcct ggagcgcgtc attcccagca gcttggttgc cacagcactc tgttgctcgg
300

```

gcaagatggt tagtgagaag gctggacacc tgccgggccca gacctgagtg cacagcctct
 360
 gtggagccac cttcctcttt ttcccactca aaacaacgga tggcaagcac ctggaaggca
 420
 gcccaagcca tgggtggccac cttctgcttc ttggt
 455

<210> 2920
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 2920
 Met Ala Trp Ala Ala Phe Gln Val Leu Ala Ile Arg Cys Phe Glu Trp
 1 5 10 15
 Glu Lys Glu Glu Gly Gly Ser Thr Glu Ala Val His Ser Gly Leu Ala
 20 25 30
 Arg Gln Val Ser Ser Leu Leu Thr Asn His Leu Ala Arg Ala Thr Glu
 35 40 45
 Cys Cys Gly Asn Gln Ala Ala Gly Asn Asp Ala Leu Gln Asp Val Leu
 50 55 60
 Ser Leu Leu Asn Asp Leu Ser Arg Ser His Ile Gly Lys Ala Ile Leu
 65 70 75 80
 Ser Gln Pro Ala Cys Val Ser Lys Leu Leu Ser Leu Leu Leu Asp Gln
 85 90 95
 Arg Pro Ser Pro Lys Leu Val Leu Ile Ile Leu Gln Leu Cys Arg Ala
 100 105 110
 Ala Leu Pro Leu Met Ser Val Glu Asp Cys Gly Asn Val Glu Leu Pro
 115 120 125
 Pro Trp Ser Tyr Ser Val Pro Ser Leu Asn Ser Glu Gln Glu Asp
 130 135 140

<210> 2921
 <211> 1855
 <212> DNA
 <213> Homo sapiens

<400> 2921
 gggcccgag cggggccttg gaggcccage ccgcgcggcg acgtctccgc gtggcgctcac
 60
 ggcaccgact gacggccacc caccatggcc gcagaccage gcccaaggc cgacacgctg
 120
 gccctgaggc aacggctcat cagctcttcc tgcagactct tttttccga ggatcctgtt
 180
 aagattgtcc gggcccaagg gcagtatcat tacgatgaac agggggcaga atacatcgat
 240
 tgcatacgca atgtggcgca cgttgggcac tgccacccctc tcgtgggtcca agcagcacat
 300
 gagcagaacc aggtgctcaa caccaacage cgggtacctgc atgacaacat cgtggagcat
 360
 gcgcagaggc tgtcagagac cctgcgggag cagctctgtg tgttctatatt cctgaattct
 420
 gggtcagaag ccaatgacct ggccctgagg ctggctcgcc actacacggg acaccaggac
 480

gtggtggtat tagatcatgc gtatcacggc cacctgagct ccctgattga catcagtcctc
540
tacaagtctcc gcaacctgga tggccagaag gagtgggtcc acgtgggcacc tctcccagac
600
acctaccggg gccctaccg gnnaggagacc accccaacc agctatggnc ctatgccaac
660
gaggtgaaac gtgtggtcag cagtgccagc gagaagggca ggaagattgc agcctctctc
720
gctgagtcctc tgcccagtggt gggaggggcag atcattcccc ctgctggcta cttctcccaa
780
gtggcagagc acatccgcaa ggcggagggg gtctttgttg cagatgagat ccaggttggc
840
tttgccggg taggcaagca cttctggggc ttccagctcc agggaaaaga cttcgtccct
900
gacatcgtca ccatgggcaa gtccattggc aacggcccacc ctggtgcctg cgtggccgca
960
accagcctg tgccgagggc atttgaagcc accggcgctg agtacttcaa cacgtttggg
1020
ggcagcccg tgctctgcgc tgtggggctg gccgtcctga atgtcttgga gaaggagcag
1080
ctccaggatc atgccaccag tgtaggcagc ttccctgatgc agctcctctg cgagcaaaaa
1140
atcagacatc ccatcgtcgg ggatgtcagg ggtgtttggc tcttcatttg tgtggtatcg
1200
atcaaaagatg agggccacaag gacaccagca actgaagagg canntgtcta cttggtatca
1260
aggctgaagg agaactacgt ttgctgagc actgatggcc ctgggaggaa catcctgaag
1320
tttaagcccc caatgtgctt cagcctggac aatgcacggc aggtgggtggc aaagctggat
1380
gccattctga ctgacatgga agagaagggt agaagttgtg aaacgctgag gctccagccc
1440
taagccagcc ctgctctgcc taagtgtact ccagaagaaa ctcatctcat ccaaatacac
1500
gctatttgaag aggcgagcct gacctccctc ttacagataa agtcagcttt cagaggctca
1560
gggtgggggg gcctgcccga ggcataatg ctacccaccc cctcctcta accactggtc
1620
tgttgaata acccagatgt ctgcatcccc tcaagtcagt caatttcctt tctgtccact
1680
gggggtggaa tggggtaggg tgggatactt taaagtgtct ctgcttaaat aaattagacc
1740
agaccagtgt atttctaaag aaaatcctga catgcacacc cattaaaaa agtacatttt
1800
acagtgtccc agtcatactt ttaattggca aattaaata atgcaatctg aaaaa
1855

<210> 2922

<211> 452

<212> PRT

<213> Homo sapiens

<400> 2922

Met Ala Ala Asp Gln Arg Pro Lys Ala Asp Thr Leu Ala Leu Arg Gln

1	5	10	15
Arg Leu Ile Ser Ser Ser Cys Arg Leu Phe Phe Pro Glu Asp Pro Val	20	25	30
Lys Ile Val Arg Ala Gln Gly Gln Tyr Met Tyr Asp Glu Gln Gly Ala	35	40	45
Glu Tyr Ile Asp Cys Ile Ser Asn Val Ala His Val Gly His Cys His	50	55	60
Pro Leu Val Val Gln Ala Ala His Glu Gln Asn Gln Val Leu Asn Thr	65	70	75
Asn Ser Arg Tyr Leu His Asp Asn Ile Val Asp Tyr Ala Gln Arg Leu	85	90	95
Ser Glu Thr Leu Pro Glu Gln Leu Cys Val Phe Tyr Phe Leu Asn Ser	100	105	110
Gly Ser Glu Ala Asn Asp Leu Ala Leu Arg Leu Ala Arg His Tyr Thr	115	120	125
Gly His Gln Asp Val Val Val Leu Asp His Ala Tyr His Gly His Leu	130	135	140
Ser Ser Leu Ile Asp Ile Ser Pro Tyr Lys Phe Arg Asn Leu Asp Gly	145	150	155
Gln Lys Glu Trp Val His Val Ala Pro Leu Pro Asp Thr Tyr Arg Gly	165	170	175
Pro Tyr Arg Xaa Arg Thr Thr Pro Thr Gln Leu Trp Xaa Tyr Ala Asn	180	185	190
Glu Val Lys Arg Val Val Ser Ser Ala Gln Glu Lys Gly Arg Lys Ile	195	200	205
Ala Ala Phe Phe Ala Glu Ser Leu Pro Ser Val Gly Gly Gln Ile Ile	210	215	220
Pro Pro Ala Gly Tyr Phe Ser Gln Val Ala Glu His Ile Arg Lys Ala	225	230	235
Gly Gly Val Phe Val Ala Asp Glu Ile Gln Val Gly Phe Gly Arg Val	245	250	255
Gly Lys His Phe Trp Ala Phe Gln Leu Gln Gly Lys Asp Phe Val Pro	260	265	270
Asp Ile Val Thr Met Gly Lys Ser Ile Gly Asn Gly His Pro Val Ala	275	280	285
Cys Val Ala Ala Thr Gln Pro Val Ala Arg Ala Phe Glu Ala Thr Gly	290	295	300
Val Glu Tyr Phe Asn Thr Phe Gly Gly Ser Pro Val Ser Cys Ala Val	305	310	315
Gly Leu Ala Val Leu Asn Val Leu Glu Lys Glu Gln Leu Gln Asp His	325	330	335
Ala Thr Ser Val Gly Ser Phe Leu Met Gln Leu Leu Trp Gln Gln Lys	340	345	350
Ile Arg His Pro Ile Val Gly Asp Val Arg Gly Val Gly Leu Phe Ile	355	360	365
Gly Val Asp Leu Ile Lys Asp Glu Ala Thr Arg Thr Pro Ala Thr Glu	370	375	380
Glu Ala Xaa Val Tyr Leu Val Ser Arg Leu Lys Glu Asn Tyr Val Leu	385	390	395
Leu Ser Thr Asp Gly Pro Gly Arg Asn Ile Leu Lys Phe Lys Pro Pro	405	410	415
Met Cys Phe Ser Leu Asp Asn Ala Arg Gln Val Val Ala Lys Leu Asp	420	425	430
Ala Ile Leu Thr Asp Met Glu Glu Lys Val Arg Ser Cys Glu Thr Leu			

435
 Arg Leu Gln Pro
 450

440

445

<210> 2923
 <211> 572
 <212> DNA
 <213> Homo sapiens

<400> 2923
 gccctccag gagtcacaga tgaggccccc gcagagactg gtgattgggtg accctgtcat
 60
 gtacaggagg gacctgaaa atgtccttaa agcctcctcc atgtaagaaa ctggcaggcc
 120
 tggagcccct cccccgtggg accaccctcc ttccagcaaa atgccggcca agctcaagga
 180
 gaaacagcgt ttattgtgga ggggagctgg gcggggctca gcctcggaga actggcagta
 240
 cagccgcccc agcctcggct ccaccatag ccggaacggg atctccagga tggcagagaa
 300
 gccttcagcc agcgttgggg cctcgaactg cttcctggga gtggtgggaa cagtgagggg
 360
 cagcctggat catgtggccc agccagtgcc cctgccccct gctatcccca acagtacctg
 420
 tagccatata tgaccatgtc tgacacgggg atatgagagg agtccgtcat ctctcgaac
 480
 cggttgttgt ggcgcgctg ctccagagtg gcggtgaaga ggaagcagcg gcaggggacg
 540
 cccgcggctc gggcacactg gacgtacctg gc
 572

<210> 2924
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 2924
 Met Ser Leu Lys Pro Pro Pro Cys Lys Lys Leu Ala Gly Leu Glu Pro
 1 5 10 15
 Leu Pro Arg Gly Thr Thr Leu Leu Pro Ala Lys Cys Arg Pro Ser Ser
 20 25 30
 Arg Arg Asn Ser Val Tyr Cys Gly Gly Glu Leu Gly Gly Ala Gln Pro
 35 40 45
 Arg Arg Thr Gly Ser Thr Ala Ala Pro Ala Ser Ala Pro Pro Ile Ala
 50 55 60
 Gly Thr Gly Ser Pro Gly Trp Gln Arg Ser Leu Gln Pro Ala Leu Gly
 65 70 75 80
 Pro Arg Thr Ala Ser Trp Gln Trp Trp Glu Gln
 85 90

<210> 2925
 <211> 1999
 <212> DNA
 <213> Homo sapiens

<400> 2925
ngcgcgccag gggggggctg ctgggggtgtt tgctgcagcg ggttttcctc ggcggtttgc
60
ggagctgcta ggatggagca ggttcgagg ggagcaagg tgaccgcagt cccctgtgtca
120
gctgccgaca gcaactgagga gttggccgaa gtcgaagaag gagtggagt agtgggcgaa
180
gataatgacg cagccgcgag aggagcggag gcctttggcg acagtgagga ggacggagag
240
gatgtgttcg aggtggagaa gatcctggac atgaagaccg aggggggtaa agttctttac
300
aaagtctcgt ggaagggcta tacatcggat gatgatacct gggagccoga gattcacctg
360
gaggactgta aagaagtgtc tcttgaattt aggaagaaaa ttgcagagaa caaagccaaa
420
gcagtcagga aggatattca gagactatcc ttaataacg acatatttga ggccaaactct
480
gatagcgatc agcaaagtga gacaaaagaa gatacttccc caaagaagaa aaagaaaaaa
540
tgagggcaga gagaagagaa aagcccagat gatctgaaaa agaaaaaagc aaaggccggg
600
aagctaaaag acaagtccaa accagacctg gagagctcct tggaaagtgt agtttttgat
660
ttaaggacaa agaaaaaat ttctgaagcc aaagaagaac taaaggagtc caaaaagccc
720
aaaaaagatg aagtaaaaga aacaaaagaa ttaagaaaag ttaaaaaggg tgaataaga
780
gatttaaaga cgaaaaacaag agaagatccc aaagaaaaa gaaaaacaaa aaagaaaaa
840
tttgtcgaat ccaggttga atctgaatca agtgtactta atgatttctc ctttccagag
900
gatgacaatg aagggttaca ttccgacagc agagaagaga aacaaaacac taagagtgc
960
agagagagag cagggcagga catggggctg gagcatggct ttgagaagcc cctagacagt
1020
gccatgagtg ctgaggagga taccgatgtc agaggcagga ggaaaaaa gaccocgaga
1080
aaggctgagg acactagaga gaacaggaag ctagagaaca agaacgcttt cttagagaag
1140
aaaactgtgc ctaaaaagca gaggaatcaa gacagaagca aaagtgtgtc agagttagag
1200
aagctgatgc ctgtatctgc ccaaacgcc aagggccgga ggttgagcgg ggaagagaga
1260
ggcctctggt ccacggactc agccgaggag gacaaagaaa ccaaaagaaa tgaatccaaa
1320
gaaaaaatatc agaaaaggca tgattctgac aaggaagaaa aaggcagaaa agagccaaaa
1380
ggattaaaga cacttaagga aatcagaat gcatttgatt tatttaaat aactccagaa
1440
gaaaaaaatg atgtttctga gaataatcg aaaagggaa gaaatccact ggatttttaa
1500
accatagacg atcacaaaac caaggaaaac aaacagtcac ttaagaaaag gagaacacc
1560

agagacgaaa cggatacttg ggcatacatt gctgcagaag gtgacagga ggttttagac
 1620
 agcgtgtgcc aagcagatga gaattcaggt gagtttggaa tcattttgta gaatttttca
 1680
 aggtagtgcga ccatattatt ttactgtact cttctctgta tttctgtatc caacgatcaa
 1740
 aaaataatgg agtcgaagag tttatttggga tctcctgaat aaataacatt ttatattgaa
 1800
 gacgggtcat tctgtgaact ctcaatggat caaacaattt ttctgagttc ctataatggt
 1860
 ctacagcagt atagaaatta aaagattttc gattttctac cttacctact cttacctggc
 1920
 agcccccatt tatatctttac tatttaatatg atttttttca ggaaattatc aaatataaac
 1980
 ttatttggat ttaccctt
 1999

<210> 2926

<211> 305

<212> PRT

<213> Homo sapiens

<400> 2926

Lys Lys Val Lys Lys Gly Glu Ile Arg Asp Leu Lys Thr Lys Thr Arg
 1 5 10 15
 Glu Asp Pro Lys Glu Asn Arg Lys Thr Lys Lys Glu Lys Phe Val Glu
 20 25 30
 Ser Gln Val Glu Ser Glu Ser Ser Val Leu Asn Asp Ser Pro Phe Pro
 35 40 45
 Glu Asp Asp Asn Glu Gly Leu His Ser Asp Ser Arg Glu Glu Lys Gln
 50 55 60
 Asn Thr Lys Ser Ala Arg Glu Arg Ala Gly Gln Asp Met Gly Leu Glu
 65 70 75 80
 His Gly Phe Glu Lys Pro Leu Asp Ser Ala Met Ser Ala Glu Glu Asp
 85 90 95
 Thr Asp Val Arg Gly Arg Arg Lys Lys Lys Thr Pro Arg Lys Ala Glu
 100 105 110
 Asp Thr Arg Glu Asn Arg Lys Leu Glu Asn Lys Asn Ala Phe Leu Glu
 115 120 125
 Lys Lys Thr Val Pro Lys Lys Gln Arg Asn Gln Asp Arg Ser Lys Ser
 130 135 140
 Ala Ala Glu Leu Glu Lys Leu Met Pro Val Ser Ala Gln Thr Pro Lys
 145 150 155 160
 Gly Arg Arg Leu Ser Gly Glu Glu Arg Gly Leu Trp Ser Thr Asp Ser
 165 170 175
 Ala Glu Glu Asp Lys Glu Thr Lys Arg Asn Glu Ser Lys Glu Lys Tyr
 180 185 190
 Gln Lys Arg His Asp Ser Asp Lys Glu Glu Lys Gly Arg Lys Glu Pro
 195 200 205
 Lys Gly Leu Lys Thr Leu Lys Glu Ile Arg Asn Ala Phe Asp Leu Phe
 210 215 220
 Lys Leu Thr Pro Glu Glu Lys Asn Asp Val Ser Glu Asn Asn Arg Lys
 225 230 235 240
 Arg Glu Glu Ile Pro Leu Asp Phe Lys Thr Ile Asp Asp His Lys Thr

<210> 2928

<211> 292

<212> PRT

<213> Homo sapiens

<400> 2928

```

Xaa Ser Ser Phe Ala Gly Leu Arg Ser Thr Lys Val Arg Ala Gly His
 1           5           10           15
Ser Gly Cys Arg Arg Pro Trp Asp Val Arg Gly Leu Arg Asp Leu
 20           25           30
Ser Leu Arg Pro Ala Thr Phe Ser Gly Val Asn Cys Leu Ala Tyr Asp
 35           40           45
Glu Ala Ile Met Ala Gln Gln Asp Arg Ile Gln Gln Glu Ile Ala Val
 50           55           60
Gln Asn Pro Leu Val Ser Glu Arg Leu Glu Leu Ser Val Leu Tyr Lys
 65           70           75           80
Glu Tyr Ala Glu Asp Asp Asn Ile Tyr Gln Gln Lys Ile Lys Asp Leu
 85           90           95
His Lys Lys Tyr Ser Tyr Ile Arg Lys Thr Arg Pro Asp Gly Asn Cys
100           105           110
Phe Tyr Arg Ala Phe Gly Phe Ser His Leu Glu Ala Leu Leu Asp Asp
115           120           125
Ser Lys Glu Leu Gln Arg Phe Lys Ala Val Ser Ala Lys Ser Lys Glu
130           135           140
Asp Leu Val Ser Gln Gly Phe Thr Glu Phe Thr Ile Glu Asp Phe His
145           150           155           160
Asn Thr Phe Met Asp Leu Ile Glu Gln Val Glu Lys Gln Thr Ser Val
165           170           175
Ala Asp Leu Leu Ala Ser Phe Asn Asp Gln Ser Thr Ser Asp Tyr Leu
180           185           190
Val Val Tyr Leu Arg Leu Leu Thr Ser Gly Tyr Leu Gln Arg Glu Ser
195           200           205
Lys Phe Phe Glu His Phe Ile Glu Gly Gly Arg Thr Val Lys Glu Phe
210           215           220
Cys Gln Gln Glu Val Glu Pro Met Cys Lys Glu Ser Asp His Ile His
225           230           235           240
Ile Ile Ala Leu Ala Gln Ala Leu Ser Val Ser Ile Gln Val Glu Tyr
245           250           255
Met Asp Arg Gly Glu Gly Gly Thr Thr Asn Pro His Ile Phe Pro Glu
260           265           270
Gly Ser Glu Pro Lys Val Tyr Leu Leu Tyr Arg Pro Gly His Tyr Asp
275           280           285
Ile Leu Tyr Lys
290

```

<210> 2929

<211> 4920

<212> DNA

<213> Homo sapiens

<400> 2929

```

cggcgccccg gggctgggag ccggggcccc caggtggaag cgcacccggg aggcgggccc
60

```

gccccgggctg gagcgggctcg ggcggggctct tgacgctcag ccagcttcgc tccggcctcg
120
ggaaggcgcg cgtcccgccc tgaccgcgcg gcctctccca cccagcagtg gacgcgcgcg
180
ctgggagctg gagccccgcg agcgccccgc agggcgatgg acggccgaac cccgcgcccg
240
caggacgccc cagccaggag aaaacccaaa gccaaaggcac cacttctctc agctgagacc
300
aaataatactg atgtctcttc agctgctgat tctgtagaat ccactgcttt catcatggaa
360
cagaaagaaa acatgataga taagacggtt gaactctcag tggctctacc tggggatatt
420
atcaaactca ctactgttca tggcagtaaa cctatgatgg acttggtgat attcctttgt
480
gcacagtatc acttaaatcc atcaagttac acaatcgatc tgtgtcagc tgaacagaa
540
cacattaat ttaagccaaa cacaccaata ggaatgttgg aggtagagaa ggtaatttta
600
aagccaaaaa tgttggtata gaaaaaacct acacctataa taccagagaa aactgtgaga
660
gtagtgatta attttaagaa aacacagaag accatagtga gagtgtgctc acatgcatcg
720
cttcaagagc ttgcccctat tatatgtagc aaatgtgagt ttgatccgtt gcatacacta
780
ttgttgaaag attatcaatc gcaggagcct cttgacttga caaaatctct taatgacctg
840
ggactaagag aattatatgc gatggatgtc aacagagagt cctgccaaat atcacaacac
900
ctagatatta tgaaggagaa agaaaaataa gggtttttca gtttttttca acgcagtaag
960
aaaaagcgag accaaactgc aagtgccctc gcaacccctc tagtaataaa gcaccgccca
1020
acttttaca ggtccaatc catttccaaa ccatatattt ccaacacctc gccgtcggat
1080
gcaccaaga agagggcggc tccactgccc ccgatgccag catctcagag tgtcccccac
1140
gaccttgac acatccagga gaggcctgct tcttgtatag tgaatccat gagcgtggat
1200
gagacagata agagtccctg tgaagcagga agagtgtagg caggttcact gcagctcagc
1260
agcatgtctg cagggaaatc atctttgaga aggcacaaagc gaaaagcacc tccccaccc
1320
tccaaaatc ccccgcatc aagtgtatga aatagtcgtg tgaactgcctt acagccagta
1380
gatggagtgc ctccagacag tgcttcagaa gcaactctc ctgaggagct atccagccca
1440
gaaaccttcc accctgggct ttccagtcag gagcagtgc ctgcgcccaa actgatggag
1500
gaaacctctg tctttgagt cctggggaca cctgaggcac ccataacatc attgacatct
1560
ggaataagct ctgattatag ccttgaagag atagatgaaa aggaagaact gagtgaagtg
1620
cctaaagttg aagctgaaaa tatttctccg aagtcacaag atattccttt tgtatctact
1680

gataataaa atacactgaa aaatgatcct gactcagccc ttggcaatgg tagtgagag
1740
ttctcacaaa actccatgga agaaaaacaa gaaactaaaa gcacagatgg acaagaacca
1800
cacagtgtag tatatgatac aagcaatgga aagaaggtag ttgacagtat aagaaacttg
1860
aagtcgttgg gcccaaacca agagaatggt caaaatgaaa taattgtcta tccagagaac
1920
acagaagaca atatgaaaaa tggagtgaag aaacagaaa tcaatgtaga aggtgttgcc
1980
aaaaataaca acattgatat ggaagtgtgag agaccatcaa actctgaggc acatgaaact
2040
gatactgcta taagttacaa ggaaaacat ctacgagctt catcagtacc agatcaaaaa
2100
ctgaatcaac ccagtgcaga aaagacaaaa gatgcagcaa ttcagacaac ccttcttgt
2160
aacagttttg atgggaaaca ccaagatcat aatttatctg actccaaagt tgaagaatgt
2220
gtgcaaaactt caaataacaa catatcaact caacactcat gcttaagttc acaagattct
2280
gtaaatcctt caagggaatt caggagtcaa ggcaccctaa ttatacatte agaagatccg
2340
cttacogtaa aagatccaat ttgtgcacat ggtaatgatg atcttttgcc tctgtagat
2400
aggattgaca aaaattccac tgcttcttac ctaaagaatt accoacttta tagacaggac
2460
tacaatccca agccaaaaccc ttcaaatgaa attacacgag agtatatacc caaaattggc
2520
atgactactt ataaaatagt gcctcccaaa tccttggaat tatcgaaaga ctggcaatca
2580
gaaaccatag agtataaaga tgatcaggac atgcatgctt tagggaaaaa gcacactcat
2640
gagaatgtga aagaaactgc catccaaaca gaagattctg ctattttctga aagcccagaa
2700
gagccactgc caaaccttaa accgaagcct aacctgagaa cacagcatca agtgccagt
2760
tctgtgagct cacctgatga tgccatgggt agtctcttga aaactgtctc caaatgaca
2820
agagacactg gcacagctcc ttttgacca aatttggaag aaataacaa tattttgga
2880
tcaaaattta aatctcgggc ttcaaatgcc caggccaaac ccagctcttt tttttgag
2940
atgcagaaga gagtatcggg tcaactatgtg acatctgcag ctgccaagag tgtccatgct
3000
gccctaatc ctgtcccaaa agaactgaca aataaagagg cagaaaggga tatgctgcct
3060
tctccggagc agactctttc tcccttaagt aaaatgcctc actctgttcc acaaccctt
3120
gttgaaaaaa ctgatgatga tgtcatcggt caggctctct ctgaagcctc cctcctccc
3180
atagctccaa aacctgtgac aattcctgct agtcaggat ccacacaaaa tctgaagact
3240
ttgaaaaactt ttggtgcccc acgaccatac tcaagttctg gtcttcacc gtttgcctt
3300

gctgtagtga aaaggtcaca gcttttcagt aaagagcgca ccgagtcacc tagtgccagt
3360
gcattgggtcc aacctccagc caacacagag gaaggggaaga ctcatctgtt aaataaattt
3420
gtggacatcc cacagcttgg tgtgtctgat aaggaaaaata actctgcaca taatgaacag
3480
aattcccaaa taccaaactcc aactgatggc ccatcattca ctgttatgag acaaaagtct
3540
ttaacattcc aaagctctga cccagaacag atgcgacaga gtttgctgac tgcaatccgt
3600
tcgggagagg ctgctgccaa attgaaaagg gttaccattc catcaaatac aatatctgtg
3660
aatggaaggt caagactcag ccattccatg tcccctgatg ccaggacgg ccattaaatg
3720
ttaccctgcc acaccactgc acttcaactc cacttcagac caacttcata ctaattggaac
3780
attttggcaa atgtatatcc agatgtacac taatatatta tctattaaaa tattagaatt
3840
tgtgttgtgg cttttaatgc cagaagaaaa gttaccagaa ttataaattt atagtaattt
3900
tttgatcttt tttttgcctt aagagttgaa tatgctgctt tagaacttta aaacaagggtg
3960
taaatgatatt tcatttttta caaatgaaaa ataattcctt tgtattgatt tcacttaacca
4020
gcacattctc tacaatgggtg acttagacaa aagtataaga ttcatagact ttatatgttg
4080
atgacatata actaggacaa acatagatat gacatttgct gcctcagtgt agcaattgga
4140
aatattttata agttatatga aagcctgttt tggggctgaaa gaattattta gaaaactagt
4200
gataccaaat aagtatatcc agttcaataa ttattttcaa tgatgaatca cttagtgtga
4260
aagacttgcc ttgtgtattc tttatgtaat tacaatacac tgtaattttt atgggaagct
4320
catagtattt taatatttta ttaacatgga actcttgctt ttttaactct tagaacttaa
4380
attctacaat aattttaaat attttctgta tataaattat acattgtcac acagaaatta
4440
cacattttat gtgccagaag ccttaaacat ctttctgtga aaatgctgat atattgtgac
4500
agttatttca catttgatat gtagagagga ataggggtta gtttatgttt atattgaaaa
4560
actttaaaga ctatttgga gttccagaaa ttctgggttt aattcaagta aaatgataaa
4620
atagtcatca tatagttcag atgctaatat tctaagtaat aatatatatt tacattgaag
4680
ctaaaactgt taagcaaaac aatgcccatt tgtcggctta cagctcttcc ggagctctaga
4740
gcctgttggt gttctgtccc tactttaaga atttaattgc tcacttattc tgaaagcctt
4800
gttcaaacaa gatgatatta aatttgtttt cactaaaact actgggatat ctgectcttg
4860
gggatttttt tttcaattta ataaaagcaa gttgtatat tgggggtgctt tttaaaaat
4920

<210> 2930
 <211> 1166
 <212> PRT
 <213> Homo sapiens

<400> 2930
 Met Asp Gly Arg Thr Pro Arg Pro Gln Asp Ala Pro Ala Arg Arg Lys
 1 5 10 15
 Pro Lys Ala Lys Ala Pro Leu Pro Pro Ala Glu Thr Lys Tyr Thr Asp
 20 25 30
 Val Ser Ser Ala Ala Asp Ser Val Glu Ser Thr Ala Phe Ile Met Glu
 35 40 45
 Gln Lys Glu Asn Met Ile Asp Lys Asp Val Glu Leu Ser Val Val Leu
 50 55 60
 Pro Gly Asp Ile Ile Lys Ser Thr Thr Val His Gly Ser Lys Pro Met
 65 70 75 80
 Met Asp Leu Leu Ile Phe Leu Cys Ala Gln Tyr His Leu Asn Pro Ser
 85 90 95
 Ser Tyr Thr Ile Asp Leu Leu Ser Ala Glu Gln Asn His Ile Lys Phe
 100 105 110
 Lys Pro Asn Thr Pro Ile Gly Met Leu Glu Val Glu Lys Val Ile Leu
 115 120 125
 Lys Pro Lys Met Leu Asp Lys Lys Lys Pro Thr Pro Ile Ile Pro Glu
 130 135 140
 Lys Thr Val Arg Val Val Ile Asn Phe Lys Lys Thr Gln Lys Thr Ile
 145 150 155 160
 Val Arg Val Ser Pro His Ala Ser Leu Gln Glu Leu Ala Pro Ile Ile
 165 170 175
 Cys Ser Lys Cys Glu Phe Asp Pro Leu His Thr Leu Leu Leu Lys Asp
 180 185 190
 Tyr Gln Ser Gln Glu Pro Leu Asp Leu Thr Lys Ser Leu Asn Asp Leu
 195 200 205
 Gly Leu Arg Glu Leu Tyr Ala Met Asp Val Asn Arg Glu Ser Cys Gln
 210 215 220
 Ile Ser Gln Asn Leu Asp Ile Met Lys Glu Lys Glu Asn Lys Gly Phe
 225 230 235 240
 Phe Ser Phe Phe Gln Arg Ser Lys Lys Lys Arg Asp Gln Thr Ala Ser
 245 250 255
 Ala Pro Ala Thr Pro Leu Val Asn Lys His Arg Pro Thr Phe Thr Arg
 260 265 270
 Ser Asn Thr Ile Ser Lys Pro Tyr Ile Ser Asn Thr Leu Pro Ser Asp
 275 280 285
 Ala Pro Lys Lys Arg Arg Ala Pro Leu Pro Pro Met Pro Ala Ser Gln
 290 295 300
 Ser Val Pro Gln Asp Leu Ala His Ile Gln Glu Arg Pro Ala Ser Cys
 305 310 315 320
 Ile Val Lys Ser Met Ser Val Asp Glu Thr Asp Lys Ser Pro Cys Glu
 325 330 335
 Ala Gly Arg Val Arg Ala Gly Ser Leu Gln Leu Ser Ser Met Ser Ala
 340 345 350
 Gly Asn Ser Ser Leu Arg Arg Thr Lys Arg Lys Ala Pro Ser Pro Pro
 355 360 365
 Ser Lys Ile Pro Pro His Gln Ser Asp Glu Asn Ser Arg Val Thr Ala

370		375		380	
Leu Gln Pro Val Asp Gly Val Pro Pro Asp Ser Ala Ser Glu Ala Asn					
385	390		395		400
Ser Pro Glu Glu Leu Ser Ser Pro Glu Thr Phe His Pro Gly Leu Ser					
	405		410		415
Ser Gln Glu Gln Cys Thr Ala Pro Lys Leu Met Glu Glu Thr Ser Val					
	420		425		430
Phe Glu Cys Pro Gly Thr Pro Glu Ala Ala Ile Thr Ser Leu Thr Ser					
	435		440		445
Gly Ile Ser Ser Asp Tyr Ser Leu Glu Glu Ile Asp Glu Lys Glu Glu					
	450		455		460
Leu Ser Glu Val Pro Lys Val Glu Ala Glu Asn Ile Ser Pro Lys Ser					
	465		470		475
Gln Asp Ile Pro Phe Val Ser Thr Asp Ile Ile Asn Thr Leu Lys Asn					
	485		490		495
Asp Pro Asp Ser Ala Leu Gly Asn Gly Ser Gly Glu Phe Ser Gln Asn					
	500		505		510
Ser Met Glu Glu Lys Gln Glu Thr Lys Ser Thr Asp Gly Gln Glu Pro					
	515		520		525
His Ser Val Val Tyr Asp Thr Ser Asn Gly Lys Lys Val Val Asp Ser					
	530		535		540
Ile Arg Asn Leu Lys Ser Leu Gly Pro Asn Gln Glu Asn Val Gln Asn					
	545		550		555
Glu Ile Ile Val Tyr Pro Glu Asn Thr Glu Asp Asn Met Lys Asn Gly					
	565		570		575
Val Lys Lys Thr Glu Ile Asn Val Glu Gly Val Ala Lys Asn Asn Asn					
	580		585		590
Ile Asp Met Glu Val Glu Arg Pro Ser Asn Ser Glu Ala His Glu Thr					
	595		600		605
Asp Thr Ala Ile Ser Tyr Lys Glu Asn His Leu Ala Ala Ser Ser Val					
	610		615		620
Pro Asp Gln Lys Leu Asn Gln Pro Ser Ala Glu Lys Thr Lys Asp Ala					
	625		630		635
Ala Ile Gln Thr Thr Pro Ser Cys Asn Ser Phe Asp Gly Lys His Gln					
	645		650		655
Asp His Asn Leu Ser Asp Ser Lys Val Glu Glu Cys Val Gln Thr Ser					
	660		665		670
Asn Asn Asn Ile Ser Thr Gln His Ser Cys Leu Ser Ser Gln Asp Ser					
	675		680		685
Val Asn Thr Ser Arg Glu Phe Arg Ser Gln Gly Thr Leu Ile Ile His					
	690		695		700
Ser Glu Asp Pro Leu Thr Val Lys Asp Pro Ile Cys Ala His Gly Asn					
	705		710		715
Asp Asp Leu Leu Pro Pro Val Asp Arg Ile Asp Lys Asn Ser Thr Ala					
	725		730		735
Ser Tyr Leu Lys Asn Tyr Pro Leu Tyr Arg Gln Asp Tyr Asn Pro Lys					
	740		745		750
Pro Lys Pro Ser Asn Glu Ile Thr Arg Glu Tyr Ile Pro Lys Ile Gly					
	755		760		765
Met Thr Thr Tyr Lys Ile Val Pro Pro Lys Ser Leu Glu Ile Ser Lys					
	770		775		780
Asp Trp Gln Ser Glu Thr Ile Glu Tyr Lys Asp Asp Gln Asp Met His					
	785		790		795
Ala Leu Gly Lys Lys His Thr His Glu Asn Val Lys Glu Thr Ala Ile					
					800

805 810 815
 Gln Thr Glu Asp Ser Ala Ile Ser Glu Ser Pro Glu Glu Pro Leu Pro
 820 825 830
 Asn Leu Lys Pro Lys Pro Asn Leu Arg Thr Glu His Gln Val Pro Ser
 835 840 845
 Ser Val Ser Ser Pro Asp Asp Ala Met Val Ser Pro Leu Lys Pro Ala
 850 855 860
 Pro Lys Met Thr Arg Asp Thr Gly Thr Ala Pro Phe Ala Pro Asn Leu
 865 870 875 880
 Glu Glu Ile Asn Asn Ile Leu Glu Ser Lys Phe Lys Ser Arg Ala Ser
 885 890 895
 Asn Ala Gln Ala Lys Pro Ser Ser Phe Phe Leu Gln Met Gln Lys Arg
 900 905 910
 Val Ser Gly His Tyr Val Thr Ser Ala Ala Ala Lys Ser Val His Ala
 915 920 925
 Ala Pro Asn Pro Ala Pro Lys Glu Leu Thr Asn Lys Glu Ala Glu Arg
 930 935 940
 Asp Met Leu Pro Ser Pro Glu Gln Thr Leu Ser Pro Leu Ser Lys Met
 945 950 955 960
 Pro His Ser Val Pro Gln Pro Leu Val Glu Lys Thr Asp Asp Asp Val
 965 970 975
 Ile Gly Gln Ala Pro Ala Glu Ala Ser Pro Pro Pro Ile Ala Pro Lys
 980 985 990
 Pro Val Thr Ile Pro Ala Ser Gln Val Ser Thr Gln Asn Leu Lys Thr
 995 1000 1005
 Leu Lys Thr Phe Gly Ala Pro Arg Pro Tyr Ser Ser Ser Gly Pro Ser
 1010 1015 1020
 Pro Phe Ala Leu Ala Val Val Lys Arg Ser Gln Ser Phe Ser Lys Glu
 1025 1030 1035 1040
 Arg Thr Glu Ser Pro Ser Ala Ser Ala Leu Val Gln Pro Pro Ala Asn
 1045 1050 1055
 Thr Glu Glu Gly Lys Thr His Ser Val Asn Lys Phe Val Asp Ile Pro
 1060 1065 1070
 Gln Leu Gly Val Ser Asp Lys Glu Asn Asn Ser Ala His Asn Glu Gln
 1075 1080 1085
 Asn Ser Gln Ile Pro Thr Pro Thr Asp Gly Pro Ser Phe Thr Val Met
 1090 1095 1100
 Arg Gln Ser Ser Leu Thr Phe Gln Ser Ser Asp Pro Glu Gln Met Arg
 1105 1110 1115 1120
 Gln Ser Leu Leu Thr Ala Ile Arg Ser Gly Glu Ala Ala Lys Leu
 1125 1130 1135
 Lys Arg Val Thr Ile Pro Ser Asn Thr Ile Ser Val Asn Gly Arg Ser
 1140 1145 1150
 Arg Leu Ser His Ser Met Ser Pro Asp Ala Gln Asp Gly His
 1155 1160 1165

<210> 2931

<211> 625

<212> DNA

<213> Homo sapiens

<400> 2931

ttactttcca cattgtctgc cctccatgga acacctgtct ctcttggtga tggaagcaac
 60

```

ccaatgtcca ctttgcctct ttggcccgcc tcaactctct ccttaccctg agatgtgtctg
120
ttagagatct tcgaagccat attttctcca gatgttttgg gatgaggaga cacaacaaca
180
gtgttttttag gttcactctg atgagttgcc atgaaatcaa accaatctaa actgtcatct
240
ctgttatctt tgtgctgagc tgaatgttcc ctacttgttg atctattagg ctccagatgc
300
ggtagggggat ctagaactgg gcttccctcg gggctgcctc caggagagaa gatatgtgtg
360
agccaggcca aaggagcaaa gtggacattg ggttgcttcc atcaccagga gagacagggtg
420
ttccatggag ggcagacaat gtggaaagta acaagaaaaa aaggctagca ctagattctg
480
aagcagcagt ctctgctgat aaaccagact cagtactgac tcatcatgtc cccaggaacc
540
tgcagaagct gtgcaaagag agggcccaga agttgtgcag aaatagcacc aggggtgcctg
600
cacagtgcac agtcccttca cgcgt
625

```

<210> 2932

<211> 90

<212> PRT

<213> Homo sapiens

<400> 2932

```

Met Cys Glu Pro Gly Gln Arg Ser Lys Val Asp Ile Gly Leu Leu Pro
1      5      10      15
Ser Pro Gly Glu Thr Gly Val Pro Trp Arg Ala Asp Asn Val Glu Ser
20     25     30
Asn Lys Lys Lys Arg Leu Ala Leu Asp Ser Glu Ala Ala Val Ser Ala
35     40     45
Asp Lys Pro Asp Ser Val Leu Thr His His Val Pro Arg Asn Leu Gln
50     55     60
Lys Leu Cys Lys Glu Arg Ala Gln Lys Leu Cys Arg Asn Ser Thr Arg
65     70     75     80
Val Pro Ala Gln Cys Thr Val Pro Ser Arg
85     90

```

<210> 2933

<211> 688

<212> DNA

<213> Homo sapiens

<400> 2933

```

caattgcgcc aagaacttaa aacagtga aaattattatg aagctctcaa acagagacaa
60
gatgaggaaa gtaggttaca gagctctctc ccaatatctg gtgaagacaa caaatgggag
120
cgagaagatc aagaacgac tagagaactt ctgaaagtta aagacagatt aattgaagta
180
gaaagaaata atgctacact gcaagcagag aagcaagcgt tgaaactca actgaagcaa
240

```

cttgagacac agaacaataa ttgagaggct cagattcttg cacttcagag gcagacagtg
 300
 tcattacaag aacagaatac cactcttcaa acacagaatg ccaagcttca ggttgaaaaa
 360
 tcaccctta attcccaaaag tacctcactc atgaaccaga atgcccact cctaataccag
 420
 cagttcttct tagaaaaatga aatgaatct gtaatcaaag agcgagaaga ctaaaatct
 480
 ctctatgatt ctctgatcaa agatcatgaa aagctggaac ttcttcattga acgtcaggct
 540
 tcagagtatg aatctcttat ctctaaacat ggaactctga agtctgcccc aaaaatctt
 600
 gaggtggaac atagagacct tgaagaccgt tacaatcagt tattaataca gaaaggacag
 660
 ttggaagatt tggaaaaaat gctcaaag
 688

<210> 2934

<211> 229

<212> PRT

<213> Homo sapiens

<400> 2934

Gln	Leu	Arg	Gln	Glu	Leu	Lys	Thr	Val	Lys	Lys	Asn	Tyr	Glu	Ala	Leu
1				5				10					15		
Lys	Gln	Arg	Gln	Asp	Glu	Glu	Arg	Met	Val	Gln	Ser	Ser	Pro	Pro	Ile
			20					25					30		
Ser	Gly	Glu	Asp	Asn	Lys	Trp	Glu	Arg	Glu	Ser	Gln	Glu	Thr	Thr	Arg
			35				40					45			
Glu	Leu	Leu	Lys	Val	Lys	Asp	Arg	Leu	Ile	Glu	Val	Glu	Arg	Asn	Asn
			50			55					60				
Ala	Thr	Leu	Gln	Ala	Glu	Lys	Gln	Ala	Leu	Lys	Thr	Gln	Leu	Lys	Gln
					70					75					80
Leu	Glu	Thr	Gln	Asn	Asn	Asn	Leu	Gln	Ala	Gln	Ile	Leu	Ala	Leu	Gln
					85				90						95
Arg	Gln	Thr	Val	Ser	Leu	Gln	Glu	Gln	Asn	Thr	Thr	Leu	Gln	Thr	Gln
					100			105					110		
Asn	Ala	Lys	Leu	Gln	Val	Glu	Asn	Ser	Thr	Leu	Asn	Ser	Gln	Ser	Thr
			115				120					125			
Ser	Leu	Met	Asn	Gln	Asn	Ala	Gln	Leu	Leu	Ile	Gln	Gln	Ser	Ser	Leu
			130			135					140				
Glu	Asn	Glu	Asn	Glu	Ser	Val	Ile	Lys	Glu	Arg	Glu	Asp	Leu	Lys	Ser
			145			150				155					160
Leu	Tyr	Asp	Ser	Leu	Ile	Lys	Asp	His	Glu	Lys	Leu	Glu	Leu	Leu	His
				165				170							175
Glu	Arg	Gln	Ala	Ser	Glu	Tyr	Glu	Ser	Leu	Ile	Ser	Lys	His	Gly	Thr
					180			185					190		
Leu	Lys	Ser	Ala	His	Lys	Asn	Leu	Glu	Val	Glu	His	Arg	Asp	Leu	Glu
			195				200					205			
Asp	Arg	Tyr	Asn	Gln	Leu	Leu	Lys	Gln	Lys	Gly	Gln	Leu	Glu	Asp	Leu
						215					220				
Glu	Lys	Met	Leu	Lys											

<210> 2935
<211> 1200
<212> DNA
<213> Homo sapiens

<400> 2935
ngacacaata gggcattcaa gtcactgggg aaatatggcc tcttttctcg gaccatttta
60
tttgaaggta tgggggaacg aaaaaaatac tattatggag tgcagtgcaac agtttgcatg
120
aaactctaaaa gataagcaa gaaatgtcaa gtagggttttg cacattgggc tgccttaggc
180
tgtgcctctt gattcttctg gtgtactcat gatactctcc cttggtgcc cccaggctga
240
cgcagctatt tacgttcaga gtgaaatggg ctgtgtggct gggattggga aaggccttgt
300
taaagctggg agagggtttg tcatggtgac agggggacctg aaggccacgc tctcttccc
360
tcttgccaat acagggaaca gttaaagaag aagaagaaag taaaggtaaa gatgaaaaag
420
aaatccacgc cctctagggg ctcacatccc aagtcgtcct caaggcagct aagcgagagc
480
ttcaagagca aagagtttgt gtctagtgat gagagctctt cgggagagaa caagagcaaa
540
aagaagagga ggaggagcga ggactctgaa gaagaagaac tagccagtag tccccccagc
600
tcagaggact cagcgctcagg atccgatgag tagaaacgga ggaagggtctt ctttgcgctt
660
gcctttctac acccccgcga agtcagcagg gaaacgcaga gaactcctat gaaccaccaa
720
aaggctgtaa atgatgaaac atgcaaaagct agccacataa catcaagtgt ctttccttca
780
gcctctctcg gtaaagcatc atctcgaaaag ccatttgga tcttttctcc aaatgttctg
840
tgcatgtatga gtgggaagag tcctgtagag agcagcttga atgttaaaac caaaaagaat
900
gcaccatctg caacgatcca ccaggggcaa gaagaaggac cacttgatat ctgggctgtt
960
gtgaaacctg gaaataccaa ggaaaaaatt gcattctttg catcccacca gtgtagtaac
1020
aggataggat ctatgaaaat aaaaagtctc tgggatattg atgggagagc tactaagaga
1080
aggaaaaaat caggggatct taaaaaagcc aaggtacagg tggaaagat gagggaaggt
1140
aacagcaggt gctaccaacc tgagcctttt gcattgtggc ttgagcactg ttctgtgcac
1200

<210> 2936
<211> 109
<212> PRT
<213> Homo sapiens

<400> 2936
Ser Trp Glu Arg Phe Gly His Gly Asp Arg Gly Pro Glu Gly Pro Ala

1	5	10	15
Pro Leu Pro Ser Cys Gln Tyr Arg Asp Lys Leu Lys Lys Lys Lys			
	20	25	30
Val Lys Val Lys Met Glu Lys Lys Ser Thr Pro Ser Arg Gly Ser Ser			
	35	40	45
Ser Lys Ser Ser Ser Arg Gln Leu Ser Glu Ser Phe Lys Ser Lys Glu			
	50	55	60
Phe Val Ser Ser Asp Glu Ser Ser Ser Gly Glu Asn Lys Ser Lys Lys			
	65	70	75
Lys Arg Arg Arg Ser Glu Asp Ser Glu Glu Glu Leu Ala Ser Thr			
	85	90	95
Pro Pro Ser Ser Glu Asp Ser Ala Ser Gly Ser Asp Glu			
	100	105	

<210> 2937

<211> 749

<212> DNA

<213> Homo sapiens

<400> 2937

```

nngaattcca gtgaaagtgg gagccttgaa gtcgtagaca gcagcgggga aatcattcac
60
cgagtcacaaa agctgacatg tcgggtaaaa attaaagaag caacggggct gcccttaaac
120
ctctcaaatt ttgtcttctg tcaatacaca ttctgggacc agtgtgagtc tacgggtggct
180
gccccgttgg tggaccccca ggtgccttca ccacagtcga aggatgccca gtacacagtg
240
acctctctcc actgtaagga ctatgtgggt aatgtaacag aagaatttct ggagttcatt
300
tcagatggag cactggccat tgaagtatgg ggccaccggt gtgctggaaa tggcagctcc
360
atctgggagg tcgattctct tcatgctaag acaagaacac tgcagacag gtggaatgaa
420
gtaacgcgaa gaatagaaat gtggatctcc atattagaat tgaatgagtt aggagagtat
480
gctgcagtgg aacttcacga ggcaaaagat gtcaacacag gaggcatctt tcaacttaga
540
cagggtcatt cccgtagagt acaagtcacg gtgaaaacctg tgcagcattc agggacactg
600
ccacttatgg ttgaagccat cctgtcagta tccatcggtc gtgtaactgc cagggtccacc
660
aaactccaaa gagggctgga cagttaccag agagatgatg aggatgggtga tgatatggat
720
agttatcagg aagaagactt aaactgcag
749

```

<210> 2938

<211> 249

<212> PRT

<213> Homo sapiens

<400> 2938

Xaa Asn Ser Ser Glu Ser Gly Ser Leu Glu Val Val Asp Ser Ser Gly

```

      1           5           10           15
Glu Ile Ile His Arg Val Lys Lys Leu Thr Cys Arg Val Lys Ile Lys
      20           25           30
Glu Ala Thr Gly Leu Pro Leu Asn Leu Ser Asn Phe Val Phe Cys Gln
      35           40           45
Tyr Thr Phe Trp Asp Gln Cys Glu Ser Thr Val Ala Ala Pro Val Val
      50           55           60
Asp Pro Glu Val Pro Ser Pro Gln Ser Lys Asp Ala Gln Tyr Thr Val
      65           70           75           80
Thr Phe Ser His Cys Lys Asp Tyr Val Val Asn Val Thr Glu Glu Phe
      85           90           95
Leu Glu Phe Ile Ser Asp Gly Ala Leu Ala Ile Glu Val Trp Gly His
      100          105          110
Arg Cys Ala Gly Asn Gly Ser Ser Ile Trp Glu Val Asp Ser Leu His
      115          120          125
Ala Lys Thr Arg Thr Leu His Asp Arg Trp Asn Glu Val Thr Arg Arg
      130          135          140
Ile Glu Met Trp Ile Ser Ile Leu Glu Leu Asn Glu Leu Gly Glu Tyr
      145          150          155          160
Ala Ala Val Glu Leu His Gln Ala Lys Asp Val Asn Thr Gly Gly Ile
      165          170          175
Phe Gln Leu Arg Gln Gly His Ser Arg Arg Val Gln Val Thr Val Lys
      180          185          190
Pro Val Gln His Ser Gly Thr Leu Pro Leu Met Val Glu Ala Ile Leu
      195          200          205
Ser Val Ser Ile Gly Cys Val Thr Ala Arg Ser Thr Lys Leu Gln Arg
      210          215          220
Gly Leu Asp Ser Tyr Gln Arg Asp Asp Glu Asp Gly Asp Asp Met Asp
      225          230          235          240
Ser Tyr Gln Glu Glu Asp Leu Asn Cys
      245

```

<210> 2939

<211> 2405

<212> DNA

<213> Homo sapiens

<400> 2939

```

nnctgacgtc tccccactac cggttccac cactgattct gggggcgaag gaaggagcca
60
gagtgcgaatt gcagatccag accccagagt cagaaggagt gagaacctgt accccaatc
120
ccactgcac cagccaatag gagcccagcc accatggcgg agctgcagga ggtgcagatc
180
acagaggaga agccactgtt gccaggacag acgcctgagg cgccaagac tcactctgtg
240
gagacaccat acggctctgt cactttcact gtctatggca ccccaaac caaacgcccc
300
gcgatccctta cctaccacga tgtgggactc aactataaat ctgcttcca gccactgttt
360
cagttcgagg acatgcagga aatcattcag aactttgtgc gggttcatgt ggaatgccct
420
ggaatggaag agggagcccc tgtgttccct ttgggatate agtaccatc tctggaccag
480

```

cttgacagaca tgatcccttg cgtcctgcag tacctaaatt tctctacaat aattggagtt
540
ggtggttgag ctggagccta catcctggcg agatatgtc ttaaccaccc ggaactgtt
600
gaaggtcttg tctcatcaa cattgatccc aatgccaagg gttggatgga ttgggcagcc
660
cacaagetaa caggcctcac ctctccatt ccggagatga tcttggaca tcttttcagc
720
caggaagagc tctctggaaa ttctgagttg atacaaaagt acagaaatat cattacacat
780
gcacccaacc tggataacat tgaattgtac tggaacagct acaacaaccg ccgagacctg
840
aactttgagc gtggagggtga tatcacccctc aggtgtcctg tgatgctggt ggtaggagac
900
caagcacctc atgaagatgc agtgggtgaa tgtaactcaa aactggagcc caccagagcc
960
tcgttctcca agatggctga ctccggaggt cagccccagc tgactcagcc aggcaagctg
1020
accgaggcct tcaagtactt cctgcaaggc atgggctaca tggcctcatc ctgcatgact
1080
cgctgtctcc ggtctcgtac agcctctctg accagtgcag catccgttga tggcaaccgg
1140
tcccgccttc gcaccctgtc ccagagcagc gagtctggaa ctctttcttc ggggccccg
1200
gggcacacca tggagggtctc ctgttgaatg gcccttggtt ccctagagtg ggaaccagcc
1260
ctcacctccc ccagagctaa cctgggaggt gctgaagggg cattgggcca ccgtaagcaa
1320
gggaaaaagg gcagatcatg cggggagatg accttgatct ttgattgcta ccctaacctt
1380
gacctttaac ccgtgattcc cccagctcc tggaaagagt gtccataat ctcttaggga
1440
cccagacccc taaattctcc tctccccca ttttggtgtt aaggtggaga gggcatatgc
1500
atcctctgtc ctgatctagg tgtctatagc tgaggggtaa gaggttgttg tagttgtcct
1560
ggtgectcca tcagactctc cctacttgtc ccatatttgc aaggggaggg gatttggggc
1620
tggggctcca ttcaccaaag ctgaggtggc ttctcattaa cccttagga ctctgaaggg
1680
tatggaccta cgtgaatgtg tgcaggggg agacttgctg gtgggttagt ggtcctcagg
1740
atgtgataga aacatccagt gtaaaaagga agttggaatg ggaattggcg ggcagtgaac
1800
gagtgagggg aaggtattgt gctggggcaa cagggaagggg cctggggccg tttggctgca
1860
ctaaactttg tagctcagtg tgcacttaga gtgggactgg ggaggagct aagcttgggg
1920
tgggctgctt ggggcttggc ataggggtga aagggtaccc ctggggctct gaccacactg
1980
tagtatgtgt ggaggggtgcc ctccgtctc ccacaacttc tgctataaca ataaactgta
2040
gaggaatcaa agatcaaggt catctcccc catgatctgc cctttttccc ttgcttacgg
2100

tgaaccaatg tcccttcagc acctcccagg ttagatatgg gggaggtgag ggctgggtcc
 2160
 cactctatgg caacaagggc aattcaacag gagacctcca tggttttcca cggggggcccc
 2220
 gaagaaagat ttccagactc gactgctctg ggaccagggg gtcattgagcg taaaatgggc
 2280
 aaggagagagc gggcggaggg ccccgaggtg gcagcagggg tcagggaaagt gggctctccga
 2340
 gtgcctctg ttgaaattgt caccaccacag ctgcccgcgc tggaaattga ggaagggttt
 2400
 ttttt
 2405

<210> 2940

<211> 357

<212> PRT

<213> Homo sapiens

<400> 2940

Met Ala Glu Leu Gln Glu Val Gln Ile Thr Glu Glu Lys Pro Leu Leu
 1 5 10 15
 Pro Gly Gln Thr Pro Glu Ala Ala Lys Thr His Ser Val Glu Thr Pro
 20 25 30
 Tyr Gly Ser Val Thr Phe Thr Val Tyr Gly Thr Pro Lys Pro Lys Arg
 35 40 45
 Pro Ala Ile Leu Thr Tyr His Asp Val Gly Leu Asn Tyr Lys Ser Cys
 50 55 60
 Phe Gln Pro Leu Phe Gln Phe Glu Asp Met Gln Glu Ile Ile Gln Asn
 65 70 75 80
 Phe Val Arg Val His Val Asp Ala Pro Gly Met Glu Glu Gly Ala Pro
 85 90 95
 Val Phe Pro Leu Gly Tyr Gln Tyr Pro Ser Leu Asp Gln Leu Ala Asp
 100 105 110
 Met Ile Pro Cys Val Leu Gln Tyr Leu Asn Phe Ser Thr Ile Ile Gly
 115 120 125
 Val Gly Val Gly Ala Gly Ala Tyr Ile Leu Ala Arg Tyr Ala Leu Asn
 130 135 140
 His Pro Asp Thr Val Glu Gly Leu Val Leu Ile Asn Ile Asp Pro Asn
 145 150 155 160
 Ala Lys Gly Trp Met Asp Trp Ala Ala His Lys Leu Thr Gly Leu Thr
 165 170 175
 Ser Ser Ile Pro Glu Met Ile Leu Gly His Leu Phe Ser Gln Glu Glu
 180 185 190
 Leu Ser Gly Asn Ser Glu Leu Ile Gln Lys Tyr Arg Asn Ile Ile Thr
 195 200 205
 His Ala Pro Asn Leu Asp Asn Ile Glu Leu Tyr Trp Asn Ser Tyr Asn
 210 215 220
 Asn Arg Arg Asp Leu Asn Phe Glu Arg Gly Gly Asp Ile Thr Leu Arg
 225 230 235 240
 Cys Pro Val Met Leu Val Val Gly Asp Gln Ala Pro His Glu Asp Ala
 245 250 255
 Val Val Glu Cys Asn Ser Lys Leu Asp Pro Thr Gln Thr Ser Phe Leu
 260 265 270
 Lys Met Ala Asp Ser Gly Gly Gln Pro Gln Leu Thr Gln Pro Gly Lys

275	280	285
Leu Thr Glu Ala Phe Lys Tyr Phe Leu Gln Gly Met Gly Tyr Met Ala		
290	295	300
Ser Ser Cys Met Thr Arg Leu Ser Arg Ser Arg Thr Ala Ser Leu Thr		
305	310	315
Ser Ala Ala Ser Val Asp Gly Asn Arg Ser Arg Ser Arg Thr Leu Ser		
325	330	335
Gln Ser Ser Glu Ser Gly Thr Leu Ser Ser Gly Pro Pro Gly His Thr		
340	345	350
Met Glu Val Ser Cys		
355		

<210> 2941

<211> 847

<212> DNA

<213> Homo sapiens

<400> 2941

naagcgttgt cgtctctccg ggccttgggc agccaggatc ttctctctggg cggcaatgcg
 60
 ccctgcaccc tgcagctgga tcttcagcat ctccatgggc gtggtcacga tcaacctggca
 120
 ggtgccagcc ccacagcccc ccagcatctc ttttaagcagg gtcagctctc ggcccagggg
 180
 ggtgcccagc cctcagtgga ggctccagct gccctcggc ccacggccac ccagctgacc
 240
 cgcgacctgc tgcggagccg tggcattgcc ggtctctaca agggactcgg ggccacgctg
 300
 ctacagggatg tccccctctc tgtggtgtac ttcccgctct ttgccaacct gaaccagctg
 360
 ggccgccccg cgctccagga gaagtgcctt ttctacgtgt ccttcctggc cggctgtgtg
 420
 gctgggagtg ccgcccgtgt ggccgtcaac cctctgtgat tgggtaagac gcgctccag
 480
 tcacttcagc gaggcgtaaa cagaggacacc tactctggga tccctggactg tgccaggaag
 540
 atcctgcggc acgagggccc ctgcgccttc ctgaagggcg cctactgcg cgcgctggtc
 600
 atcgcccc ttttcggcat cgcacagtg gtctacttcc tgggcatcgc ggagtcctg
 660
 ctgggggtgc tgcaggaccc ccaggcctga gccagcacc cgctccaccc cagccagctg
 720
 ggcagggccg gtgtggggct ggagccaggc agctagccca ggacggagca agggaagacc
 780
 cttccccagc cctcccgctc gcagggggcag cagggggcag ggtgcagggt ccacataggt
 840
 ggtgcac
 847

<210> 2942

<211> 229

<212> PRT

<213> Homo sapiens

<400> 2942

Xaa Ala Leu Ser Ser Leu Arg Ala Leu Gly Ser Gln Asp Leu Pro Leu
 1 5 10 15
 Gly Gly Asn Ala Pro Cys Ile Leu Gln Leu Asp Leu Gln His Leu His
 20 25 30
 Gly Arg Gly His Asp His Leu Ala Gly Ala Ser Pro Thr Ala Arg Gln
 35 40 45
 His Leu Phe Lys Gln Gly Gln Leu Ser Ala Gln Gly Gly Ala Gln Pro
 50 55 60
 Ser Val Glu Ala Pro Ala Ala Pro Arg Pro Thr Ala Thr Gln Leu Thr
 65 70 75 80
 Arg Asp Leu Leu Arg Ser Arg Gly Ile Ala Gly Leu Tyr Lys Gly Leu
 85 90 95
 Gly Ala Thr Leu Leu Arg Asp Val Pro Phe Ser Val Val Tyr Phe Pro
 100 105 110
 Leu Phe Ala Asn Leu Asn Gln Leu Gly Arg Pro Ala Ser Glu Glu Lys
 115 120 125
 Ser Pro Phe Tyr Val Ser Phe Leu Ala Gly Cys Val Ala Gly Ser Ala
 130 135 140
 Ala Ala Val Ala Val Asn Pro Cys Asp Val Val Lys Thr Arg Leu Gln
 145 150 155 160
 Ser Leu Gln Arg Gly Val Asn Glu Asp Thr Tyr Ser Gly Ile Leu Asp
 165 170 175
 Cys Ala Arg Lys Ile Leu Arg His Glu Gly Pro Ser Ala Phe Leu Lys
 180 185 190
 Gly Ala Tyr Cys Arg Ala Leu Val Ile Ala Pro Leu Phe Gly Ile Ala
 195 200 205
 Gln Val Val Tyr Phe Leu Gly Ile Ala Glu Ser Leu Leu Gly Leu Leu
 210 215 220
 Gln Asp Pro Gln Ala
 225

<210> 2943

<211> 1501

<212> DNA

<213> Homo sapiens

<400> 2943

tccgattttt cagccgggtc ttccggggat ggagagcaaa aggacttggt gctctcggag
 60
 agagccttga ggggccggaa gtcgaggcgg gactgactct gcttccgttt ctggttttgc
 120
 tctagtgttt gggttttctt cgggtctgct aagatgaacc gactcttcgg gaaagcgaaa
 180
 cccaaggctc cgccgccag cctgactgac tgcattggca cgggtggacag tagagcagaa
 240
 tccattgaca agaagatttc tcgattggat gctgagctag tgaagtataa ggatcagatc
 300
 aagaagatga gagaggggtc tgcaaagaat atggtcaagc agaaagcctt gcgagtttta
 360
 aagcaaaaga ggaatgatga gcagcagcgg gacaatcttg ccaacagtca ttcaacatgg
 420
 aacgcccaatt ataccatcca gtctttgaag gacaccaaga ccacgggttg tgctatgaaa
 480

ctgggagtaa aggaaatgaa gaaggcatac aagcaagtga agatcgacca gattgaggat
 540
 ttacaagacc agctagagga tatgatggaa gatgcaaatg aaatccaaga agcactgagt
 600
 cgagcttatg gcaccccca actggatgaa gatgatttag aagcagagtt ggatgacct
 660
 ggtgatgagc ttctggctga tgaagacagt tcttatttgg atgaggcagc atctgcacct
 720
 gcaattccag aaggtgttcc cactgatata aaaaacaagg atggagtctt ggtggatgaa
 780
 ttgggattgc cacagatccc tgcttcatag atttgcatac ttcaagcata tcttgtaaaa
 840
 caaacacata ttatgggact aggaaatatt tatctttcca aatttgccat aacagattta
 900
 ggtttcttcc ctttctttga aggaaagtgt aattacattg ctcttttatt ttttccatta
 960
 agagactcat tgcttgggaa atgctttctt cgtactaaaa ttgattcctt tttttctta
 1020
 tgaaaaacga actcagtta aaagtatttt tagctcgtat gacttgtttt cattcattaa
 1080
 taataatttg aaataaaact aaggaatagg aatcttaaaa gtctatgaca gtgtaactct
 1140
 acagctctca aatgacctga taaattgata agacaaagat gagattattg gggctgttca
 1200
 tattatgatt cagaatcatt ttctattgtg gtattatagg ttggttaaag tgatggcctt
 1260
 ttgtatgggt tttgtgtgt cttgtgaaca agtcgttact gtgtccatta ttggaatgga
 1320
 attatcacta ctgtatcatg agtgggtatt ttgattctat ggttccctca gtattacatc
 1380
 ttgacttgta atcaattatg aatatttctt gatatttaat gtataggaca tttatttata
 1440
 ctcaataaat atttttcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 1500
 a
 1501

<210> 2944

<211> 218

<212> PRT

<213> Homo sapiens

<400> 2944

Met Asn Arg Leu Phe Gly Lys Ala Lys Pro Lys Ala Pro Pro Ser
 1 5 10 15
 Leu Thr Asp Cys Ile Gly Thr Val Asp Ser Arg Ala Glu Ser Ile Asp
 20 25 30
 Lys Lys Ile Ser Arg Leu Asp Ala Glu Leu Val Lys Tyr Lys Asp Gln
 35 40 45
 Ile Lys Lys Met Arg Glu Gly Pro Ala Lys Asn Met Val Lys Gln Lys
 50 55 60
 Ala Leu Arg Val Leu Lys Gln Lys Arg Met Tyr Glu Gln Gln Arg Asp
 65 70 75 80
 Asn Leu Ala Asn Ser His Ser Thr Trp Asn Ala Asn Tyr Thr Ile Gln

	85		90		95								
Ser	Leu	Lys	Asp	Thr	Thr	Val	Asp	Ala	Met	Lys	Leu	Gly	Val
	100					105					110		
Lys	Glu	Met	Lys	Lys	Ala	Tyr	Lys	Gln	Val	Lys	Ile	Asp	Gln
	115					120					125		
Asp	Leu	Gln	Asp	Gln	Leu	Glu	Asp	Met	Met	Glu	Asp	Ala	Asn
	130					135					140		
Gln	Glu	Ala	Leu	Ser	Arg	Ser	Tyr	Gly	Thr	Pro	Glu	Leu	Asp
	145					150				155			160
Asp	Leu	Glu	Ala	Glu	Leu	Asp	Ala	Leu	Gly	Asp	Glu	Leu	Leu
	165								170			175	
Glu	Asp	Ser	Ser	Tyr	Leu	Asp	Glu	Ala	Ala	Ser	Ala	Pro	Ala
	180								185			190	
Glu	Gly	Val	Pro	Thr	Asp	Thr	Lys	Asn	Lys	Asp	Gly	Val	Leu
	195						200				205		
Glu	Phe	Gly	Leu	Pro	Gln	Ile	Pro	Ala	Ser				
	210					215							

<210> 2945

<211> 3331

<212> DNA

<213> Homo sapiens

<400> 2945

```

nngcggcggt tagctccag ttcggcctct gaggaaaacg ggcgttcgcc tgcggttggt
60
ccgactgtta gcaacatgag cggcctggat ggggtcaaga ggaccactcc cctccaaacc
120
cacagcatca ttatttctga ccaagtcocg agcagaccagg acgcacacca gtacctgagg
180
ctccgcgacc aaagcgaggc gacacagggt atggcggagc cgggtgaggg aggctcggag
240
accgtcgcgc tccgcctcc accgccttca gaggaggggg gcgtacccca ggatgcgcgc
300
ggccgtggcg gtactcccca gatcogagtt gttgggggtc gcggtcatgt ggcgatcaaa
360
gccgggcagg aagagggcca gcctcccgcc gaaggcctgg cagccgcttc tgtgtgtagt
420
gcagccgacc gcagcctgaa aaagggcggt cagggtggag agaaggccct agaaatctgt
480
ggcgcccaga gatcgcgctc tgagctgacg cggggggcgg aggctgaggg ggagagagtg
540
aagacaggaa agtcgcccac cgtctcagca cccgtggctg agaggagag cgctgaggtg
600
gtggtgaagg aaggcctggc ggagaaggag gtaatggagg agcagatgga ggtagaggag
660
cagccgccag aaggtaaga aatagaagtg cgggaggagg atagattgga ggagaggcgg
720
agggaggaag aaggggccctg gcctttgcat gaggctctcc gcatggagccc tctggaggcc
780
atccagctgg aactggacac tgtgaatgct caggccgaca gggccttcca acagctggag
840
cacaagtttg ggcggatgag tcgacactac ctggagcggg ggaactacat cattcagaat
900

```

atcccgggct tctggatgac tgcctttcga aaccaccccc agttgtccgc catgattagg
960
ggccaagatg cagagatggt aaggtacata accaattttag aggtgaagga actcagacac
1020
cctagaaccg gttgcaagtt caagttcttc tttagaagaa accctactct cagaaacaag
1080
ctgattgtca aggaatatga ggtaagatcc tccggccgag tgggtgtctct tctactcca
1140
attatatggc gcagggggca tgaacccag tccttcattc gcagaaacca agacctcatc
1200
tgcagcttct tcaettgggt ttcagaccac agccttcag agtcogacaa aattgtctgag
1260
attattaaag aggatctgtg gccaaatcca ctgcaatact acctgttgcg tgaaggagtc
1320
cgtagagccc gacgtcgccc gctaaggagg cctgtagaga tcccaggcc ctttgggttc
1380
cagctctggt aacatttgcc ctgggaata ctctgcaca aggtctctta ccacctctg
1440
ctggacctgt gcttgggcat cagcaatgag tatgccttct attgtgcttt gtttttgctg
1500
acttttctgc acctgttttc ctttggatat tcagttctct caacctcaag attgagacgg
1560
tgggtgggtat gcttctccac ttcacatga ccttcctgct gttctggaat atcacatgct
1620
acgagggtcat ccttcacact acttgtaagc caagcaaatg atactgtaga ttgtactgcc
1680
tttatctgca ctgcttggac ctgttttatt cccagggect ctgaaactggt tgcgtcact
1740
tggattttcta gcttggggag cctgttccac ctactcagct ctgcattgag cagtatgggc
1800
acatgccctg tggacagtta ctggacgcta atgaactcag aggagaaaag cagttagcca
1860
ctgttctgt gtgatttatg gtaettcatt gctctcctt cacctctagt cactttctat
1920
tgctacctgc cctacattgg ctccctgcaa ggteectctc tctccctggt tctcttttt
1980
tttttttttt tttttttttt gagacggagg acggagtctt gctctgtcgc ccaggttgga
2040
gtgcagtggc gcgatctcgg ctcactgcaa cctccacctc ccgggttcaa gcgattctcc
2100
tgctcagcc tcccagtag ctgggactac aggcgcgcgc cgcacgccc ggctaatttt
2160
tatattttta gttagacggc ggtttacca tgcgtgccac gctggtctcg aaccccgatc
2220
tcgtgatccg cctccttag cctcccaatc ctctcttaaa aaagtgatag ctacagaaaca
2280
ttgttaaaag caagggtttt atttcatttt ggctctgtca ttttcagagg caaagaagtt
2340
ggcctgtaaa atagagtgtc agagctctta cgcctctccc ctctcttcca acttctact
2400
tctagccct tttatcaact cctagaatag ttaaagagag acacatctag atgggatgaa
2460
aggtgcccta agcaggagaa actgaacaaa aggcctagagg catggggccag gtaaaaaattg
2520

ggcttagagt gaagactgtg ctgtcgttaa gagctttcga ggaaggagta cttactcccc
 2580
 aatgatgatg aatggaaaaa tacttttcag ggagaattga aggggttaaa gtgttaaata
 2640
 tgttcctag acaagggttc tttaaagaaa gacagcgcaa ctttgaatgc tttcttactt
 2700
 gtttgtgac ctaatttatg tggaagattg ttatttcatt aggatttagt aaaatttttt
 2760
 tttctgattc taaacttatt gtgaaaattg agctgtacag atattccttt gatttcaatt
 2820
 gggaacattt ggaagaacaa cagtcttact tgcctgtaca atatagagac atatgaatag
 2880
 tcataacagt ttccaacttg ttcttgtttc tgtaaacta tattcctaga aacatagttt
 2940
 gaacaacttg gtctttgtta ggcttggtcaa attgccttca tgaaaaata atctacaaaa
 3000
 gtatgggtta attgattgtc ttacatgata attttccctg gtaacaactt agtaagtgat
 3060
 atatcttttt tctaaaattg cttaataact gtgaaattgc tctgacaaat tggaagtgtg
 3120
 ccattggcat atttgccttc ctttttatgc atgatggtaa aataaaagca tgttgttctg
 3180
 ctagatttct tatttttcac cttaccata aatgtaatgc ttgaatgaag ttgttcatat
 3240
 taattaaaaa ttatggaatc attaaagtcc tttaatccat taaagttctt aatggattaa
 3300
 aatcattaaa gttcttaatg gattaaaatc a
 3331

<210> 2946

<211> 463

<212> PRT

<213> Homo sapiens

<400> 2946

Xaa	Arg	Arg	Leu	Ala	Pro	Ser	Ser	Ala	Ser	Glu	Glu	Asn	Gly	Arg	Ser
1				5					10					15	
Pro	Ala	Val	Gly	Pro	Thr	Val	Ser	Asn	Met	Ser	Gly	Leu	Asp	Gly	Val
		20						25					30		
Lys	Arg	Thr	Thr	Pro	Leu	Gln	Thr	His	Ser	Ile	Ile	Ile	Ser	Asp	Gln
		35					40					45			
Val	Pro	Ser	Asp	Gln	Asp	Ala	His	Gln	Tyr	Leu	Arg	Leu	Arg	Asp	Gln
		50				55				60					
Ser	Glu	Ala	Thr	Gln	Val	Met	Ala	Glu	Pro	Gly	Glu	Gly	Gly	Ser	Glu
65				70					75					80	
Thr	Val	Ala	Leu	Pro	Pro	Pro	Pro	Pro	Ser	Glu	Glu	Gly	Gly	Val	Pro
			85					90						95	
Gln	Asp	Ala	Ala	Gly	Arg	Gly	Gly	Thr	Pro	Gln	Ile	Arg	Val	Val	Gly
		100					105					110			
Gly	Arg	Gly	His	Val	Ala	Ile	Lys	Ala	Gly	Gln	Glu	Glu	Gly	Gln	Pro
		115					120					125			
Pro	Ala	Glu	Gly	Leu	Ala	Ala	Ser	Val	Val	Met	Ala	Ala	Asp	Arg	
		130				135				140					
Ser	Leu	Lys	Lys	Gly	Val	Gln	Gly	Gly	Glu	Lys	Ala	Leu	Glu	Ile	Cys

145 150 155 160
 Gly Ala Gln Arg Ser Ala Ser Glu Leu Thr Ala Gly Ala Glu Ala Glu
 165 170 175
 Ala Glu Glu Val Lys Thr Gly Lys Cys Ala Thr Val Ser Ala Ala Val
 180 185 190
 Ala Glu Arg Glu Ser Ala Glu Val Val Lys Glu Gly Leu Ala Glu
 195 200 205
 Lys Glu Val Met Glu Glu Gln Met Glu Val Glu Glu Gln Pro Pro Glu
 210 215 220
 Gly Glu Glu Ile Glu Val Ala Glu Glu Asp Arg Leu Glu Glu Glu Ala
 225 230 235 240
 Arg Glu Glu Glu Gly Pro Trp Pro Leu His Glu Ala Leu Arg Met Asp
 245 250 255
 Pro Leu Glu Ala Ile Gln Leu Glu Leu Asp Thr Val Asn Ala Gln Ala
 260 265 270
 Asp Arg Ala Phe Gln Gln Leu Glu His Lys Phe Gly Arg Met Arg Arg
 275 280 285
 His Tyr Leu Glu Arg Arg Asn Tyr Ile Ile Gln Asn Ile Pro Gly Phe
 290 295 300
 Trp Met Thr Ala Phe Arg Asn His Pro Gln Leu Ser Ala Met Ile Arg
 305 310 315 320
 Gly Gln Asp Ala Glu Met Leu Arg Tyr Ile Thr Asn Leu Glu Val Lys
 325 330 335
 Glu Leu Arg His Pro Arg Thr Gly Cys Lys Phe Lys Phe Phe Arg
 340 345 350
 Arg Asn Pro Tyr Phe Arg Asn Lys Leu Ile Val Lys Glu Tyr Glu Val
 355 360 365
 Arg Ser Ser Gly Arg Val Val Ser Leu Ser Thr Pro Ile Ile Trp Arg
 370 375 380
 Arg Gly His Glu Pro Gln Ser Phe Ile Arg Arg Asn Gln Asp Leu Ile
 385 390 395 400
 Cys Ser Phe Phe Thr Trp Phe Ser Asp His Ser Leu Pro Glu Ser Asp
 405 410 415
 Lys Ile Ala Glu Ile Ile Lys Glu Asp Leu Trp Pro Asn Pro Leu Gln
 420 425 430
 Tyr Tyr Leu Leu Arg Glu Gly Val Arg Arg Ala Arg Arg Arg Pro Leu
 435 440 445
 Arg Glu Pro Val Glu Ile Pro Arg Pro Phe Gly Phe Gln Ser Gly
 450 455 460

<210> 2947

<211> 997

<212> DNA

<213> Homo sapiens

<400> 2947

nacgcgtccg ccgcgcgtgcc cgtcgccatg aaccgcttca ggggtgtccaa gttccggcac
 60
 accgaggctc ggccgccccg ccgcgagtcg tggatcagtg acattcgagc aggaaccgcc
 120
 ccttcagtca ggaaccacat caaatcaagc tgcagcttga tcgcttccaa ctccgaccgt
 180
 cctggtgtac tgggcattgt gcctctgcaa ggccaaggag aggacaagcg acgcgtggcc
 240

cacctgggct gccattcaga cctagtcacc gacttggact tctcgccctt tgatgacttc
 300
 ctctctggcca caggctcggc tgacaggacg gtaaaactct ggcgactgcc agggcctggc
 360
 caggccctgc cctcagcacc cgggggtggtg ctgggccccg aggacctccc agtgagggtg
 420
 ctgcagttcc accccacctc tgacggcatt ctggtgagcg cagcaggcac cactgtgaag
 480
 gtctgggacg cagccaagca gcagcccctg acagagctcg cagcccattg ggacctgggtg
 540
 cagagcgccg tctggagccg agatggagcc ctggtggggc cggcgtgcaa ggacaagcag
 600
 ctgcagatct ttgaccccg aacaaagccg cgggcctctc agagcacgca ggcccatgag
 660
 aacagcaggg atagccggct ggcctggatg ggcacctggg agcaccttgt gtctactgga
 720
 ttcaaccaga tgcgtgagcg cgaagtgaag ctgtgggaca cgcggttctt ctccagcgcc
 780
 ctggcctccc tcacctgga cactctgctt ggggtctctc tgccctctgct ggacctgac
 840
 tctgggctcc tggtcctggc aggaaggggc gagaggcagc tgtactgtta cgaggtgggtc
 900
 ccgcagcagc cggcgctgag cccagtgaac cagtgtgtcc tggagagcgt gctgcgtggg
 960
 gctgcctctg tgccccgca ggcgctggcc gtcatga
 997

<210> 2948

<211> 332

<212> PRT

<213> Homo sapiens

<400> 2948

Xaa	Ala	Ser	Ala	Ala	Val	Pro	Val	Ala	Met	Asn	Arg	Phe	Arg	Val	Ser
1			5					10					15		
Lys	Phe	Arg	His	Thr	Glu	Ala	Arg	Pro	Pro	Arg	Arg	Glu	Ser	Trp	Ile
			20					25					30		
Ser	Asp	Ile	Arg	Ala	Gly	Thr	Ala	Pro	Ser	Cys	Arg	Asn	His	Ile	Lys
		35				40					45				
Ser	Ser	Cys	Ser	Leu	Ile	Ala	Phe	Asn	Ser	Asp	Arg	Pro	Gly	Val	Leu
		50			55						60				
Gly	Ile	Val	Pro	Leu	Gln	Gly	Gln	Gly	Glu	Asp	Lys	Arg	Arg	Val	Ala
		65			70					75				80	
His	Leu	Gly	Cys	His	Ser	Asp	Leu	Val	Thr	Asp	Leu	Asp	Phe	Ser	Pro
			85					90					95		
Phe	Asp	Asp	Phe	Leu	Leu	Ala	Thr	Gly	Ser	Ala	Asp	Arg	Thr	Val	Lys
			100					105					110		
Leu	Trp	Arg	Leu	Pro	Gly	Pro	Gly	Gln	Ala	Leu	Pro	Ser	Ala	Pro	Gly
			115				120					125			
Val	Val	Leu	Gly	Pro	Glu	Asp	Leu	Pro	Val	Glu	Val	Leu	Gln	Phe	His
		130				135					140				
Pro	Thr	Ser	Asp	Gly	Ile	Leu	Val	Ser	Ala	Ala	Gly	Thr	Thr	Val	Lys
			145			150				155				160	
Val	Trp	Asp	Ala	Ala	Lys	Gln	Gln	Pro	Leu	Thr	Glu	Leu	Ala	Ala	His

165 170 175
 Gly Asp Leu Val Gln Ser Ala Val Trp Ser Arg Asp Gly Ala Leu Val
 180 185 190
 Gly Thr Ala Cys Lys Asp Lys Gln Leu Gln Ile Phe Asp Pro Arg Thr
 195 200 205
 Lys Pro Arg Ala Ser Gln Ser Thr Gln Ala His Glu Asn Ser Arg Asp
 210 215 220
 Ser Arg Leu Ala Trp Met Gly Thr Trp Glu His Leu Val Ser Thr Gly
 225 230 235 240
 Phe Asn Gln Met Arg Glu Arg Glu Val Lys Leu Trp Asp Thr Arg Phe
 245 250 255
 Phe Ser Ser Ala Leu Ala Ser Leu Thr Leu Asp Thr Ser Leu Gly Cys
 260 265 270
 Leu Val Pro Leu Leu Asp Pro Asp Ser Gly Leu Leu Val Leu Ala Gly
 275 280 285
 Lys Gly Glu Arg Gln Leu Tyr Cys Tyr Glu Val Val Pro Gln Gln Pro
 290 295 300
 Ala Leu Ser Pro Val Thr Gln Cys Val Leu Glu Ser Val Leu Arg Gly
 305 310 315 320
 Ala Ala Leu Val Pro Arg Gln Ala Leu Ala Val Met
 325 330

<210> 2949

<211> 880

<212> DNA

<213> Homo sapiens

<400> 2949

actagtatca ctccctccag tggagccttt tctggggatt tagctgaatc cttgtgagta
 60
 acattctgaa tcacttgctt gatgattgtt attgggatta gtttccttgg gacatatgct
 120
 ggcaactgtgt ggtcctggtc ataggtactt tggattttcc catttacttt ttacttcca
 180
 acaacagtct tgtgattgaa aatcttactc caaattccac cttccacatt gtctttcact
 240
 ccaaattcat aaactgtgtt gggctttagg ttttccacaa ttgtttcagg ggctggacag
 300
 atttgaaaaa tcactttctt ttctttatcc ttttctcgat agcgaattgt ataaaaatctg
 360
 tcattggggac agtgacttgg caatgtccag tcattggtgtg ggttgatgag gaaacccag
 420
 gacaggaaga ctgagctcgg tgtcagagtg ccaaccacca gctgcagagg tttgcgagaa
 480
 cgagttttac ctgaacatga cttcttttga cttggagggtg gaggaggctg cacaactatc
 540
 agatatctcg gctctgcac cactatagct tctgtgaatt tcccttcagc ggaagagggt
 600
 aagtactggt ttggtgatac attgctgcca tatcccagga gaagaccttc aagctttaca
 660
 ttgactcttg gacgcaagaa cttcaagagg atggagtcac ttgtggtatt gatgtggact
 720
 ttgagggttg gccctttacc ttttggcaat ttctgtgcat ttcccagggc tagtgaata
 780

cttccacaga gaagtagaca ccccaaactg gagagcatgt tgcatttgcc acctcgcatg
 840
 gggaatgatg ctggtgggtg cctcgcaacc ctggagctga
 880

<210> 2950

<211> 279

<212> PRT

<213> Homo sapiens

<400> 2950

Met Arg Gly Gly Lys Cys Asn Met Leu Ser Ser Leu Gly Cys Leu Leu
 1 5 10 15
 Leu Cys Gly Ser Ile Thr Leu Ala Leu Gly Asn Ala Gln Lys Leu Pro
 20 25 30
 Lys Gly Lys Arg Pro Asn Leu Lys Val His Ile Asn Thr Thr Ser Asp
 35 40 45
 Ser Ile Leu Leu Lys Phe Leu Arg Pro Ser Pro Asn Val Lys Leu Glu
 50 55 60
 Gly Leu Leu Leu Gly Tyr Gly Ser Asn Val Ser Pro Asn Gln Tyr Phe
 65 70 75 80
 Pro Leu Pro Ala Glu Gly Lys Phe Thr Glu Ala Ile Val Asp Ala Glu
 85 90 95
 Pro Lys Tyr Leu Ile Val Val Arg Pro Ala Pro Pro Pro Ser Gln Lys
 100 105 110
 Lys Ser Cys Ser Gly Lys Thr Arg Ser Arg Lys Pro Leu Gln Leu Val
 115 120 125
 Val Gly Thr Leu Thr Pro Ser Ser Val Phe Leu Ser Trp Gly Phe Leu
 130 135 140
 Ile Asn Pro His His Asp Trp Thr Leu Pro Ser His Cys Pro Asn Asp
 145 150 155 160
 Arg Phe Tyr Thr Ile Arg Tyr Arg Glu Lys Asp Lys Glu Lys Lys Trp
 165 170 175
 Ile Phe Gln Ile Cys Pro Ala Pro Glu Thr Ile Val Glu Asn Leu Lys
 180 185 190
 Pro Asn Thr Val Tyr Glu Phe Gly Val Lys Asp Asn Val Glu Gly Gly
 195 200 205
 Ile Trp Ser Lys Ile Phe Asn His Lys Thr Val Val Gly Ser Lys Lys
 210 215 220
 Val Asn Gly Lys Ile Gln Ser Thr Tyr Asp Gln Asp His Thr Val Pro
 225 230 235 240
 Ala Tyr Val Pro Arg Lys Leu Ile Pro Ile Thr Ile Ile Lys Gln Val
 245 250 255
 Ile Gln Asn Val Thr His Lys Asp Ser Ala Lys Ser Pro Glu Lys Ala
 260 265 270
 Pro Leu Gly Gly Val Ile Leu
 275

<210> 2951

<211> 3478

<212> DNA

<213> Homo sapiens

<400> 2951

aaatgaggct gctgcggacg gcctgaggat ggaccccaag ccctggacct gccgagcgtg
60
gcaactgaggc agcggctgac gctactgtga gggaaagaag gttgtgagca gccccgcagg
120
ccccctggcc agccctggcc ccagcctctg ccggagccct ctgtggaggc agagcagtgc
180
gagcccaagt aggcagggct gcttggcagc caccggcctg caactcagga acccctccag
240
aggccatgga caggctgccc cgctgacggc cagggtgaag catgtgagga gccgccccgg
300
agccaagcag gagggaagag gctttcatag attctattca caaagaataa ccaccatttt
360
gcaaggacca tgaggccact gtgcgtgaca tgctggtggc tcggaactgct ggctgccatg
420
ggagctgttg caggccagga ggaagggtttt gagggcactg agggagggtc gccaaagagag
480
ttcatttacc taaacaggta caagcgggcg ggcgagtccc aggaacaagt cacctacacc
540
ttcattgtgc ccagcagcg ggtcacgggt gccatctgcg tcaactcaa ggagcctgag
600
gtgcttcttg agaaccgagt gcataagcag gagctagagc tgctcaacaa tgagctgctc
660
aagcagaagc ggcagatcga gacgctgcag cagctgggtg aggtggacgg cggcattgtg
720
agcgaggtag agctgctgcg caaggagagc cgcaacatga actcgcgggt caccgagctc
780
tacctgcagc tctgcacga gatcatccgc aagcgggaca acgcgttgga gctctcccag
840
ctggagaaca ggatcctgaa ccagacagct gacatgctgc agctggccag caagtacaag
900
gacctggagc acaagttcca gcacctggct atgctggccc acaaccaatc agagatcatc
960
gcgcagcttg aggagcactg ccagagggtg ccctcgccca ggccggtccc ccagccccc
1020
ccagcagctc caccctgggt ctaccaacca ccacacata accgcatcat caaccagatc
1080
tctaccaacg agatccagag tgaccagaac ctgaagggtc tgccaccccc tctgccact
1140
atgcccatc tcaccagcct cccatcttcc accgacaagc cgtcgggccc atggagagac
1200
tgctgcagg ccttgaggga tggccacgac accagctcca tctacctggt gaagcgggag
1260
aacaccaacc gcctcatgca ggtgtggtgc gaccagagac acgaccccg gggttgagcc
1320
gtcatccaga gacgcttga ttgctctgtt aactttctca ggaactggga gacgtacaag
1380
caagggtttg ggaacattga tggcgaatac ttgctgggcc tggagaacat ttactggctg
1440
acgaaccaag gcaactacaa actcctgggt accatggagg actggtccgg ccgcaaaagt
1500
tttgagaat acgcagttt ccgcctgaa cctgagagcg agtattataa gctcgcgctg
1560
gggcgctacc atggcaatgc ggggtactcc ttacatggc acaacggcaa gcagttcac
1620

accctggaca gagatcatga tgtctacaca ggaactgtg ccactacca gaaggaggc
1680
tgggtggata acgcctgtgc ccactccaac ctcaacgggg tctggtagcg cgggggccat
1740
taccggagcc gctaccagga cggagtctac tgggctgagt tccgaggagg ctcttactca
1800
ctcaagaag tgggtgatgat gatccgaccg aaccccacaa ccttccacta agccagctcc
1860
ccctcctgac ctctcgtggc cattgccagg agccccccct ggtcacgctg gccacagcac
1920
aaagaacaa cctccaccag ttcattctga ggctgggagg accgggagtc tggattctgt
1980
tttccgaagt cactgcagcg gatgatggaa ctgaatcgat acggtgtttt ctgtccctcc
2040
tactttcctt cacaccagac agccccctat gtctccagga caggacagga ctacagacaa
2100
ctctttcttt aaataaatta agtctctaca ataaaaaac aactgcaaag taccttcata
2160
atatacatgt gtagtagcct cccttgtgca cgtatgtgta taccacatat atatgcattt
2220
agatatatat cacatgtgat atatctagat ccataatatg gtttgcctta gatactaaa
2280
tacacatata ttcagttctc agatgttgaa gctgtcacca gcagctttgc tcttaggaga
2340
aaagcatttc attagtgttg tattacttga gtctaagggt agatcacaga ctgtgtggtc
2400
tcaactgaaa ggcaccacct tggcatctgt gtgcctggat tcttcagaa tgtctacaat
2460
gctaattctt cacatagagg ttcccagctt cttaagaacc ctttttgcca cctaatacaa
2520
tttcaaaatc cctcccccca ctttttcata cttttcccca ttctcaggac ttttaccat
2580
ccatcaccca cttatccctt catttgacac cattcattaa gtgccttctg tgtgtcagtc
2640
cctggccact cactgcagtt caagggcccc tttccgctct gctgtactcc tcgcctacct
2700
actccttgcc tttttctgct cacagccctt tctttccagg cgagattcct cagcttctga
2760
gtaggaaaca ctccgggctc cagggtttctg gttgggaagg gaaggccagg ccaaaagctc
2820
cacgggcgt atagataatg tactcgagtt tttgtatctt ccattcatc tttaacctac
2880
aggtcatttg agtcttcaca caaataataa cctatctggc caggagaatt atctcagaac
2940
agaatgcac agatcatcag agccccaga tggctacaga ccagagattc cacgctctca
3000
ggctgactag agtccgcctc tcattctcaa actacacttc cctggagaac aagtgcaca
3060
aaaatgaaaa caggccactt ctcaggagtt gaataatcag gggtcaccgg accccttggt
3120
tgatgcactg cagcatgggt gctttctgag tctgttggc caccaaggtg cagcctcagc
3180
actccggga ctattgccaa gaaggggcaa gggatgagtc aagaaggtga gacccttccc
3240

ggtgggcacg tgggccaggc tgtgtgagat gttggatgtt tgggtactgtc catgtctggg
 3300
 tgtgtgccta ttacctcagc atttctcaca aagtgtacca tgtagcatgt tttgtgtata
 3360
 taaaaggagg ggttttttta aaaatatatt cccagattat ccttgtaatg acacgaatct
 3420
 gcaataaaaag ccatcagtg c tatttggatg tatctacaaa aaaaaaaaaa aaaaaaaa
 3478

<210> 2952

<211> 493

<212> PRT

<213> Homo sapiens

<400> 2952

Met Arg Pro Leu Cys Val Thr Cys Trp Trp Leu Gly Leu Leu Ala Ala
 1 5 10 15
 Met Gly Ala Val Ala Gly Gln Glu Asp Gly Phe Glu Gly Thr Glu Glu
 20 25 30
 Gly Ser Pro Arg Glu Phe Ile Tyr Leu Asn Arg Tyr Lys Arg Ala Gly
 35 40 45
 Glu Ser Gln Asp Lys Cys Thr Tyr Thr Phe Ile Val Pro Gln Gln Arg
 50 55 60
 Val Thr Gly Ala Ile Cys Val Asn Ser Lys Glu Pro Glu Val Leu Leu
 65 70 75 80
 Glu Asn Arg Val His Lys Gln Glu Leu Glu Leu Leu Asn Asn Glu Leu
 85 90 95
 Leu Lys Gln Lys Arg Gln Ile Glu Thr Leu Gln Gln Leu Val Glu Val
 100 105 110
 Asp Gly Gly Ile Val Ser Glu Val Lys Leu Leu Arg Lys Glu Ser Arg
 115 120 125
 Asn Met Asn Ser Arg Val Thr Gln Leu Tyr Met Gln Leu Leu His Glu
 130 135 140
 Ile Ile Arg Lys Arg Asp Asn Ala Leu Glu Leu Ser Gln Leu Glu Asn
 145 150 155 160
 Arg Ile Leu Asn Gln Thr Ala Asp Met Leu Gln Leu Ala Ser Lys Tyr
 165 170 175
 Lys Asp Leu Glu His Lys Phe Gln His Leu Ala Met Leu Ala His Asn
 180 185 190
 Gln Ser Glu Ile Ile Ala Gln Leu Glu Glu His Cys Gln Arg Val Pro
 195 200 205
 Ser Ala Arg Pro Val Pro Gln Pro Pro Pro Ala Ala Pro Pro Arg Val
 210 215 220
 Tyr Gln Pro Pro Thr Tyr Asn Arg Ile Ile Asn Gln Ile Ser Thr Asn
 225 230 235 240
 Glu Ile Gln Ser Asp Gln Asn Leu Lys Val Leu Pro Pro Pro Leu Pro
 245 250 255
 Thr Met Pro Thr Leu Thr Ser Leu Pro Ser Ser Thr Asp Lys Pro Ser
 260 265 270
 Gly Pro Trp Arg Asp Cys Leu Gln Ala Leu Glu Asp Gly His Asp Thr
 275 280 285
 Ser Ser Ile Tyr Leu Val Lys Pro Glu Asn Thr Asn Arg Leu Met Gln
 290 295 300
 Val Trp Cys Asp Gln Arg His Asp Pro Gly Gly Trp Thr Val Ile Gln

```

305          310          315          320
Arg Arg Leu Asp Gly Ser Val Asn Phe Phe Arg Asn Trp Glu Thr Tyr
          325          330          335
Lys Gln Gly Phe Gly Asn Ile Asp Gly Glu Tyr Trp Leu Gly Leu Glu
          340          345          350
Asn Ile Tyr Trp Leu Thr Asn Gln Gly Asn Tyr Lys Leu Leu Val Thr
          355          360          365
Met Glu Asp Trp Ser Gly Arg Lys Val Phe Ala Glu Tyr Ala Ser Phe
          370          375          380
Arg Leu Glu Pro Glu Ser Glu Tyr Tyr Lys Leu Arg Leu Gly Arg Tyr
          385          390          395          400
His Gly Asn Ala Gly Asp Ser Phe Thr Trp His Asn Gly Lys Gln Phe
          405          410          415
Thr Thr Leu Asp Arg Asp His Asp Val Tyr Thr Gly Asn Cys Ala His
          420          425          430
Tyr Gln Lys Gly Gly Trp Trp Tyr Asn Ala Cys Ala His Ser Asn Leu
          435          440          445
Asn Gln Val Trp Tyr Arg Gly Gly His Tyr Arg Ser Arg Tyr Gln Asp
          450          455          460
Gly Val Tyr Trp Ala Glu Phe Arg Gly Gly Ser Tyr Ser Leu Lys Lys
          465          470          475          480
Val Val Met Met Ile Arg Pro Asn Pro Asn Thr Phe His
          485          490

```

<210> 2953

<211> 1377

<212> DNA

<213> Homo sapiens

<400> 2953

```

nnggctcagg ctgcgggaaa gcgggtgcgcg tgcagcgggg tgggtgccct ggtccgcggg
60
cgagctcgag cagccaaccc cgggcgcgtc ggggccatgg acggcctgag gcagcgcgtg
120
gagcacttcc tggagcaaaag gaacctgtgc accgaagtgc tggggggcct ggaggccaag
180
accgggggtgg agaagcggta tctggctgca ggagccgtca ctctgtctaag cctgtatctg
240
ctgttcggct acggagcgtc tctgtctgtc aatctcatcg gatttctgta cccgcataat
300
gcttcaatca aagctatcga gagcccaagc aaggacgacg acactgtgtg gctcacctac
360
tgggtgggtg acgccctgtt tgggctggcc gagttcttca gcgatctact cctgtctctg
420
ttccctttct actacgtggg caagtgcgcc ttcctgttgt tctgcatggc tccaggcccc
480
tggaacgggg ctctcatgct gtatcagcgc gtcgtgcgtc cgctgttctt aaggcaccac
540
gggggcgtag acagaatcat gaacgacctc agcgggcgag ccctggagcg ggcggccgga
600
ataaccaggga acgtcaagcc aagccagacc ccgcagccga aggacaagtg aagcagcccc
660
ctgagcctca caaggacctc ctggctgggt agggagggggc gcgcgccaggc tccaggcct
720

```

ccacagagtc ttcagcgcat cccccaacag cagccctctgc cagtccctcg ggtccaggca
 780
 aggcctctggg ggtctcctta aatgccacct cgggcaagtc ccagtcaccag tctctggcca
 840
 cccccagctc tggatcccg ggcagactgc cctctggctc tggctgtggc tccgcctgt
 900
 ccggcagggc ccaggggccag cgtcggggac agggcagctc cacttggtct cggcaacaca
 960
 cccagccgcc tggtaacttc tccagccctc ccagtcagc cctcccgctc tcggggcccc
 1020
 tgcagccacc caacgtcacc tccagccggc tctcaccat ggtccagtct cccagcagca
 1080
 gcaacatccc cagcagccccc cccagcaagt cctctggcaa gccggaggac gcagccccc
 1140
 agaccagcgg acagcggccag aagggaatcgt cgaacagacc tggcagcagc gcctcagtgc
 1200
 ccgagctggt cccctgccat tccgggacct ctctggagta cacttcggag tccaccacg
 1260
 agatcacctg cagctggcca caccacaggc ccccgctcct gcagcactac tggctgctga
 1320
 aacacctggc ctgctaggag gctccaataa agctaaccgc gaccagaaaa aaaaaaa
 1377

<210> 2954

<211> 181

<212> PRT

<213> Homo sapiens

<400> 2954

Leu Arg Gln Arg Val Glu His Phe Leu Glu Gln Arg Asn Leu Val Thr
 1 5 10 15
 Glu Val Leu Gly Ala Leu Glu Ala Lys Thr Gly Val Glu Lys Arg Tyr
 20 25 30
 Leu Ala Ala Gly Ala Val Thr Leu Leu Ser Leu Tyr Leu Leu Phe Gly
 35 40 45
 Tyr Gly Ala Ser Leu Leu Cys Asn Leu Ile Gly Phe Val Tyr Pro Ala
 50 55 60
 Tyr Ala Ser Ile Lys Ala Ile Glu Ser Pro Ser Lys Asp Asp Asp Thr
 65 70 75 80
 Val Trp Leu Thr Tyr Trp Val Val Tyr Ala Leu Phe Gly Leu Ala Glu
 85 90 95
 Phe Phe Ser Asp Leu Leu Leu Ser Trp Phe Pro Phe Tyr Trp Val Gly
 100 105 110
 Lys Cys Ala Phe Leu Leu Phe Cys Met Ala Pro Arg Pro Trp Asn Gly
 115 120 125
 Ala Leu Met Leu Tyr Gln Arg Val Val Arg Pro Leu Phe Leu Arg His
 130 135 140
 His Gly Ala Val Asp Arg Ile Met Asn Asp Leu Ser Gly Arg Ala Leu
 145 150 155 160
 Asp Ala Ala Ala Gly Ile Thr Arg Asn Val Lys Pro Ser Gln Thr Pro
 165 170 175
 Gln Pro Lys Asp Lys
 180

<210> 2955
 <211> 295
 <212> DNA
 <213> Homo sapiens

<400> 2955
 acgcgtagaag gggtagagaat atgttttccc tggctcaact taccacacct caatgcctac
 60
 agatgtgtta tcacctaaact gttcacttgt ttctgtcatg tgttttcatg tccatttcac
 120
 aaggcatgcc ctgccccctgt ctcactttcc cttatttctg gcatatcaac tcgtatttcc
 180
 caatttccca ctataaaggg catcacagtgc taccacttcc tctctctccc aaaatagctt
 240
 ctccaccatt ctactcatt atagggatta gcaagcaagc cgctgctcaa gccag
 295

<210> 2956
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 2956
 Met Phe Ser Leu Ala Gln Leu Thr Thr Pro Gln Cys Leu Gln Met Cys
 1 5 10 15
 Tyr His Leu Thr Val His Leu Phe Leu Ser Cys Val Phe Met Ser Ile
 20 25 30
 Ser Gln Gly Met Pro Cys Pro Cys Leu Thr Phe Pro Leu Phe Trp His
 35 40 45
 Ile Asn Ser Tyr Phe Pro Ile Ser His Tyr Lys Gly His Thr Val Leu
 50 55 60
 Pro Leu Pro Leu Ser Ser Lys Ile Ala Ser Pro Phe Ser Leu Ile
 65 70 75 80
 Ile Gly Ile Ser Lys Gln Ala Ala Ala Gln Ala
 85 90

<210> 2957
 <211> 4724
 <212> DNA
 <213> Homo sapiens

<400> 2957
 ctgaattgaa caacagtctt catccaacac tccaaccagc ttggcagggg aggcccttg
 60
 gtgtgggggtg ttggatgaag actgttgttc aattcagggg ccggtggggc tgagggtttc
 120
 tgtgggggaa gacctgatac cgccaggccc cgaagccctt caggagccag tcggtggggg
 180
 tctcactta cagggtaaaa acgggggtctc tgagggtggg cctgaccagg aaacgctgag
 240
 ccgggacctc gcgtgattct cggaaccgga ggagaagcgg cgccgggggc tatggctgtg
 300
 actctggaca aagacgctta ttatcggcga gtgaagagac tgtacagcaa ttggcggaaa
 360

ggagaagatg agtatgccaa cgttgatgcc attgtgttat cagtggtgtg tgatgaagaa
420
attgttttatg ccaaatcaac tgccttacag acatggctct ttggttatga actaactgat
480
actatcatgg tcttttgtga tgacaaaac atctttatgg ccagcaagaa aaaagtggag
540
ttcttgaaac agattgccaa cactaagggc aatgagaatg ctaatggagc ccctgccatc
600
acactgctaa tacgagaaaa gaatgaaagt aataagagta gctttgacaa aatgattgaa
660
gccattaaag aaagcaagaa tggcaagaag attggagtgt tcagcaaaaga caaattccct
720
ggagagtcca tgaagagctg gaatgactgc ctcaacaaag aaggctttga caaaatagat
780
atcagtcgag ttgtggcata taccatcgct gtgaaggagg atggggagct caacctaatg
840
aagaaagcag ccagcatcac ttctgaagtc ttcaacaaat tcttcaagga aagagtcatg
900
gaaatagttg atgcagatga gaaagttcga cacagcaaac tggctgagtc tgtgaaaaag
960
gccattgaag agaaaaaata ccttgctggg gcagaccctt ctactgtgga aatgtgttac
1020
cctcctatca ttacagagtgg tggcaactat aatctcaagt tcagtgtggt gagtgacaag
1080
aatcatatgc actttggggc tatcacttgt gccatgggta ttgccttcaa gtcttactgc
1140
tccaaccttg ttgcactttt gatggttgat ccttctcaag aagttcaaga aaattataac
1200
tttttgctcc agcttcaaga ggagctgctg aaggaattaa gacatggtgt gaagatatgt
1260
gacgtgtata acgctgtcat ggacgtggtt aaaaagcaga agccagaact gctgaacaaa
1320
attacaaaaa acctagggtt tgggatggga attgaattcc gtgaaggctc ctagtaatc
1380
aatagcaaaa atcaatacaa actgaagaaa ggaatggtt tcagcatcaa tttaggattc
1440
tcagacctga ctaacaagga ggggaaaaag cccgaagaga aaacctatgc cctgttcatt
1500
ggtgacacag tgcttgtgga tgaggatggc ccagctactg ttctcacttc tgtgaagaag
1560
aaagtgaaga atgtggggat ttctcctaaag aatgaagatg aggaagaaga ggaggaggag
1620
aaagatgagg cagaggacct tttgggaaga ggttctcggg cagcattact tacagaagaa
1680
acaagaaatg aaatgactgc agaagagaag cgaagagcac atcagaaaga actagcggct
1740
caactcaatg aagaagcaaa gaggcgattg actgaacaaa agggagaaca gcagattcag
1800
aaagctcgca agtctaatgt gtccctataaa aacccatctc tgatgcctaa ggaaccgcac
1860
attcgggaaa tgaagatcta catogataag aaatatgaga ctgtaataat gccctgtgtt
1920
ggcattgcaa caccgtttca cattgccaca atcaagaata taagtatgtc cgtggaagga
1980

gattatactt acttgccaat caacttttat tgcccaggca gtgctctggg caggaatgaa
2040
ggcaacatct ttcctaacct tgaagcgact tttgtcaagg aaattacata ccgagcatca
2100
aatattaagg caccocggaga acagacagta ccagccttga accttcagaa tgctttccga
2160
attattaaag aagtacagaa acgttataaa actcgagaag ctgaagagaa agagaaggag
2220
ggcattgtaa aacaagactc actggtgatc aatctaaacc ggagtaatcc gaaactgaaa
2280
gatctataca ttgccccaaa tattgcccaa aagaggatgc aaggctcact ggaggcccat
2340
gtcaatggct tccgcttcac atctgttcga ggagacaaag tggatatttt gtacaataat
2400
attaagcatg ctttgttcca gccctgtgat ggagaaatga ttattgtctt gcactttcac
2460
ctcaagaatg ccacatgtt tgggaagaag cggcacacgg atgtgcagtt ctacacagaa
2520
gtgggagaga taaccacgga cttggggaaa catcagcata tgcagtaccg agatgacctc
2580
tatgctgagc agatggaacg agaaatgagg cacaacctga aaacagcctt taaaaatttc
2640
attgagaaag tagaggctct aactaaggag gaactggaat ttgaagtgcc ttttagggac
2700
ttgggattta acggagctcc ctataggagt acctgcctcc ttacagccac tagtagtgcg
2760
ctggtaaatg ctacggaatg gccacctttt gtggtgacat tggatgaggt agagctgatc
2820
cactttgagc ggggtccagtt tcacctgaag aactttgata tggtaatcgt ctacaaggac
2880
tacagcaaga aagtgaccat gatcaacgcc attcctgtag cctctcttga ccccatcaag
2940
gaatgggtga attcctgcga cctgaaatac acagaaggag tacagtccct caactggact
3000
aaaatcatga agaccattgt tgatgacctt gagggcttct tcgaacaagg tggctggctt
3060
ttcctggagc ctgagggtga ggggagtgat gctgaagaag gggattcaga gtctgaattt
3120
gaagatgaga cttttaatcc ttcagaagat gactatgaag aggaagagga ggacagtgat
3180
gaagattatt catcagaagc agaagagtca gactattcta aggagtcatt gggtagtgaa
3240
gaagagagtg gaaaggattg ggaatgaactg gaggaagaag cccgaaaagc ggaccgagaa
3300
agtcgttacg aggaagaaga agaacaaagt cgaagtatga gccggaagag gaaggcatct
3360
gtgcacagtt cgggcctgtg ctctaaccgt ggttcacagc acagctctgc acccccaag
3420
aaaagagga agtaactttc gaactttggc cctgagctcc attttctctc cagctaacc
3480
ctgaaaattt tacatgacat agaaactgta tttttctctt cgttttcatt tgaagtgttg
3540
ccatttgtgt ttatgggttt agggggccat ttgtgtggac caatctactc ggggaattcc
3600

agggccacca ggacacgtgc caatggcccc attcagatgg caagggagga ggtgttcttg
 3660
 aagacaggag gaggtctccg ctgttaataa atattgtttc attcttctct ctctctgtca
 3720
 ccttctgcc agacattgat ggcttctgac atcttatttg gtgtctcaaa gctgtatttc
 3780
 caagacagt gtacaagggt acccttaatt acccgatatc tggttcttga ccagcacatt
 3840
 caatctctca acctacccta ctgccatgac ctctcgaca tctctaagtt ttatctttgc
 3900
 aatactcaag gttctcggaa atttgctaatt ggtgtgata aaccatacag cttgagccag
 3960
 tgaggcagat tgggctggtg ccttcgtctg agttttctct ctctcctgcc tcgtgcagat
 4020
 tctgaggtat atctgctgcc ttggaagaca taagaagcag tgatactccc tggctcggtt
 4080
 attttctcca tacaatgcac acatggtaca atgataaga gcaaaattgc cactgtcttc
 4140
 tttttttct catatatcta aggaagatat atcagggtgt gctcatgta ccgtctctag
 4200
 tgaatgtag aggaaggctc aaaggagtca acatttagat ctggaaggga caagtcatgc
 4260
 ctggggccta gaatacctg atgagaaaaa agaagaggaa gggaggccat atctacaaca
 4320
 cagctctctg gcactgctgc tcttattttt aactttgtct tgcattgtcc tgtatttato
 4380
 acagtttctg ttgaacagct tttcaagtat ttggggagtt tatcttgcca tctctccctt
 4440
 ctggttctct gcacccacct gtccactgc agttctcttc gtgctctgtg actttaagag
 4500
 aagaaggggg gaggggtccc ggattttatg tttgtttgtt ttttctcctt agcagtagga
 4560
 cttgatattt tcaattttgg aagaactaaa agatgaataa actgggtttt tttgtgtgtt
 4620
 tgtttttgta aaaaaaaaaa aaaaaaaaaa aaccataaaa attataaaaa aaaaaaaaaa
 4680
 aaaaaccccc caaggggccc cccccgaaa aaaaaaaaaa aaaa
 4724

<210> 2958

<211> 1047

<212> PRT

<213> Homo sapiens

<400> 2958

Met	Ala	Val	Thr	Leu	Asp	Lys	Asp	Ala	Tyr	Tyr	Arg	Arg	Val	Lys	Arg
1				5				10					15		
Leu	Tyr	Ser	Asn	Trp	Arg	Lys	Gly	Glu	Asp	Glu	Tyr	Ala	Asn	Val	Asp
		20					25					30			
Ala	Ile	Val	Val	Ser	Val	Gly	Val	Asp	Glu	Glu	Ile	Val	Tyr	Ala	Lys
	35					40					45				
Ser	Thr	Ala	Leu	Gln	Thr	Trp	Leu	Phe	Gly	Tyr	Glu	Leu	Thr	Asp	Thr
	50				55						60				
Ile	Met	Val	Phe	Cys	Asp	Asp	Lys	Ile	Ile	Phe	Met	Ala	Ser	Lys	Lys

65				70				75				80			
Lys	Val	Glu	Phe	Leu	Lys	Gln	Ile	Ala	Asn	Thr	Lys	Gly	Asn	Glu	Asn
			85					90					95		
Ala	Asn	Gly	Ala	Pro	Ala	Ile	Thr	Leu	Leu	Ile	Arg	Glu	Lys	Asn	Glu
			100					105					110		
Ser	Asn	Lys	Ser	Ser	Phe	Asp	Lys	Met	Ile	Glu	Ala	Ile	Lys	Glu	Ser
			115				120					125			
Lys	Asn	Gly	Lys	Lys	Ile	Gly	Val	Phe	Ser	Lys	Asp	Lys	Phe	Pro	Gly
			130			135					140				
Glu	Phe	Met	Lys	Ser	Trp	Asn	Asp	Cys	Leu	Asn	Lys	Glu	Gly	Phe	Asp
			145			150				155				160	
Lys	Ile	Asp	Ile	Ser	Ala	Val	Val	Ala	Tyr	Thr	Ile	Ala	Val	Lys	Glu
			165						170					175	
Asp	Gly	Glu	Leu	Asn	Leu	Met	Lys	Lys	Ala	Ala	Ser	Ile	Thr	Ser	Glu
			180					185					190		
Val	Phe	Asn	Lys	Phe	Phe	Lys	Glu	Arg	Val	Met	Glu	Ile	Val	Asp	Ala
			195				200								
Asp	Glu	Lys	Val	Arg	His	Ser	Lys	Leu	Ala	Glu	Ser	Val	Glu	Lys	Ala
			210			215					220				
Ile	Glu	Glu	Lys	Lys	Tyr	Leu	Ala	Gly	Ala	Asp	Pro	Ser	Thr	Val	Glu
			225		230					235				240	
Met	Cys	Tyr	Pro	Pro	Ile	Ile	Gln	Ser	Gly	Gly	Asn	Tyr	Asn	Leu	Lys
			245					250						255	
Phe	Ser	Val	Val	Ser	Asp	Lys	Asn	His	Met	His	Phe	Gly	Ala	Ile	Thr
			260				265						270		
Cys	Ala	Met	Gly	Ile	Arg	Phe	Lys	Ser	Tyr	Cys	Ser	Asn	Leu	Val	Arg
			275				280					285			
Thr	Leu	Met	Val	Asp	Pro	Ser	Gln	Glu	Val	Gln	Glu	Asn	Tyr	Asn	Phe
			290			295					300				
Leu	Leu	Gln	Leu	Gln	Glu	Glu	Leu	Leu	Lys	Glu	Leu	Arg	His	Gly	Val
			305		310					315				320	
Lys	Ile	Cys	Asp	Val	Tyr	Asn	Ala	Val	Met	Asp	Val	Val	Lys	Lys	Gln
			325					330						335	
Lys	Pro	Glu	Leu	Leu	Asn	Lys	Ile	Thr	Lys	Asn	Leu	Gly	Phe	Gly	Met
			340					345					350		
Gly	Ile	Glu	Phe	Arg	Glu	Gly	Ser	Leu	Val	Ile	Asn	Ser	Lys	Asn	Gln
			355			360					365				
Tyr	Lys	Leu	Lys	Lys	Gly	Met	Val	Phe	Ser	Ile	Asn	Leu	Gly	Phe	Ser
			370			375					380				
Asp	Leu	Thr	Asn	Lys	Glu	Gly	Lys	Lys	Pro	Glu	Glu	Lys	Thr	Tyr	Ala
			385			390				395				400	
Leu	Phe	Ile	Gly	Asp	Thr	Val	Leu	Val	Asp	Glu	Asp	Gly	Pro	Ala	Thr
			405					410					415		
Val	Leu	Thr	Ser	Val	Lys	Lys	Lys	Val	Lys	Asn	Val	Gly	Ile	Phe	Leu
			420					425					430		
Lys	Asn	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Lys	Asp	Glu	Ala	Glu
			435				440					445			
Asp	Leu	Leu	Gly	Arg	Gly	Ser	Arg	Ala	Ala	Leu	Leu	Thr	Glu	Arg	Thr
			450			455				460					
Arg	Asn	Glu	Met	Thr	Ala	Glu	Glu	Lys	Arg	Arg	Ala	His	Gln	Lys	Glu
			465		470				475					480	
Leu	Ala	Ala	Gln	Leu	Asn	Glu	Glu	Ala	Lys	Arg	Arg	Leu	Thr	Glu	Gln
			485					490						495	
Lys	Gly	Glu	Gln	Gln	Ile	Gln	Lys	Ala	Arg	Lys	Ser	Asn	Val	Ser	Tyr

930		935		940
Asp Glu Thr Phe Asn Pro Ser Glu Asp Asp Tyr Glu Glu Glu Glu Glu				
945		950		955
Asp Ser Asp Glu Asp Tyr Ser Ser Glu Ala Glu Glu Ser Asp Tyr Ser				
	965		970	975
Lys Glu Ser Leu Gly Ser Glu Glu Glu Ser Gly Lys Asp Trp Asp Glu				
	980		985	990
Leu Glu Glu Glu Ala Arg Lys Ala Asp Arg Glu Ser Arg Tyr Glu Glu				
	995		1000	1005
Glu Glu Glu Gln Ser Arg Ser Met Ser Arg Lys Arg Lys Ala Ser Val				
	1010		1015	1020
His Ser Ser Gly Arg Gly Ser Asn Arg Gly Ser Arg His Ser Ser Ala				
	1025		1030	1035
Pro Pro Lys Lys Lys Arg Lys				1040
				1045

<210> 2959

<211> 3323

<212> DNA

<213> Homo sapiens

<400> 2959

```

ttcactgtgac cgcggacagc ttaaggaccc cgcattcccag tgcgcctcgc ctggagctcc
60
gggaagtgtgc cggaccocgga acgcaggcgg agcgcaagtc cgtcagccag tcagtcocgac
120
agtccgcagc cccagtagct ctctctcttc ggccctcgta agctgtccgc ggtctgtttg
180
gcccgaacgg cggcggaggc gctgatcatg gcgacattca tctcggtgca gctgaaaaag
240
acctcagagg tggacctggc caagccgctg gtgaagttca tccagcagac ttaccaagc
300
ggcggggaag agcaggccca gtactgccgc gcggcggagg agctcagcaa gctgcgcgcg
360
gccgcagtcg gtctgtccgt ggacaagcac gagggcgccg tcgagacgct cctgagatat
420
tatgatcaga ttgtttctat tgaacccaaa ttcccatatt ctgaaaaatca gatctgcttg
480
acatttacct ggaaggatgc ttctgataaa ggttcacttt ttggaggctc tgtaaaactg
540
gtctctgcaa gcttaggata tgaagagc tggtgtgtgt tcaattgtgc agccttagct
600
agccaaattg cagcagaaca gaacctggat aatgatgaag gattgaaaat cgtctgctaa
660
cattaccagt ttgctagtgg tgccttttta catattaaag agacgggttt atctgcctta
720
agtccagagc gcacctgga catatctcca gatactgttg ggaccctcag tcttattatg
780
ctggcacagg ctcaagaagt atttttttta aaagcccaa gagataaaat gaaagatgcc
840
atcatagcta aattggctaa tcaggctgca gattattttg gtgatgcttt caaacagtg
900
caatacaaa atactctccc caaggagggt ttcctgtgtc tggtgcaaa gcactgtatc
960

```

atgcaggcca atgctgagta ccatcagctc atcctggcaa aacagcagaa gaaatttga
1020
gaagaaattg caagggtaca gcatgcagca gaactgatta aaacagtgcc atctcgtctat
1080
gatgaatatg ttaatgtgaa ggatttttct gacaaaatca atcgtgcctc tgctgcagca
1140
aagaaggata atgacttcat ttatcatgat cgagttccag acctaaaga tctagatcct
1200
attggcaaa gacacacttg gaaatctacc ccggtcaatg taccatcag tcagaaattt
1260
actgactctg ttgagaagat ggtccccgtg tcagtcacag agtctttggc tgcctataat
1320
cagaggaaa gcatgttggt taacagatca attgctcaga tgagagaagc caccactttg
1380
gcaaatgggg tgctagcttc ccttaatctt ccagcagcaa ttgaagatgt gtcctggagc
1440
actgtacctc agtctatatt gactaaatcc agatctgtga ttgaacaggg aggcattccag
1500
actgttgatc agctgataaa agagctgcct gagctgctac aaagaaatag ggaaatatta
1560
gaggagtac taagattggt ggatgaaga gaagcaactg ataatgactt aagagcaaaa
1620
tcaaggacc ggtggcaaa gactccatcc aatgacctgt ataagccttt aagagcagag
1680
ggaaccaact tcagaacagt tttagataaa gctgtgcagg cagatggaca agtgaagaa
1740
tgttaccagt ctcatcgtga caccatcgtg cttttgtgta agccagagcc tgagctgaat
1800
gctgccatcc cttctgctaa tccagcaaa accatgcagg gcagtgaagg tgtaaatgtc
1860
ttaaaatcct tattgtcaaa tcttgatgaa gtaagaagg aaagagaggg tctggagaat
1920
gacttgaat ctgtgaattt tgacatgaca agcaagtttt tgacagcctt ggctcaagat
1980
ggtgtgataa atgaagaagc tctttctggt actgaactag atcgagtcta tggaggctct
2040
acaactaaag tccaagaatc tctaagaaa caggaggagc ttcttaaaaa tattcaggtc
2100
tcacatcagg aattttcaaa aatgaacaa tctaataatg aagctaactt aagagaagaa
2160
gttttgaa gaattagctac tgcataatg aactttgttg aacttgtagc taatttgaag
2220
gaaggcaca agttttacaa tgagttgact gaaatcctgg tcaggttcca gaacaaatgc
2280
agtgatatag tttttgcacg gaagacagaa agagatgaac tcttaaagga cttgcaacaa
2340
agcattgcca gagaacctag tgctccttca attcctacac ctgcgtatca gtcttaccac
2400
gcaggaggac atgcaccaac tcctccaact ccagcgccaa gaaccatgcc gcctactaag
2460
ccccagccc cagccaggcc tccaccacct gtgcttccag caaatcgagc tccttctgct
2520
actgctccat ctccagtggg ggctgggact gctgcgccag ctccatcaca aacgctggc
2580

tcagctctctc ctccacaggc gcagggacca cccatccca cctatccagg atactctggg
 2640
 tattgccaaa tgcccatgcc catgggctat aatccttatg cgtatggcca gtataatatg
 2700
 ccataccac cagtgtatca ccagagtctc ggacaggctc catacccgagg accccagcag
 2760
 ccttcatacc ccttccctca gccccacag cagtcttact atccacagca gtaatatgtc
 2820
 tgcctcagcag ctccagctgat tcagatcaga gggaaagaaa tacciaacct gcaataagtg
 2880
 tactaaactc tacgctctgg ttaatgtaat gtactctcct ggactgaatg cagtgtataa
 2940
 ttctgtctca cagctagaag ctgtgcccc gttccacatt tgattacaca tgtgagattt
 3000
 gctgctgttg cagtataaac actaggtata ataggatttg aaattgcatt acagttcata
 3060
 aaaattgaaa atgagaaaatt aaacctgcaa gtgaaacatt tgaacgatt atactttcta
 3120
 cataagacat ggttgaggaca tcagatactt acaaagatgg ttaagtatg gatactagag
 3180
 aaaattaagt tttctttctc ttgggtttat tgatttgggt taatttccat tatgctattt
 3240
 tgcataatca aggcactgta aatcttataa ttttaaaaaa aattacttaa gaacaaaaaa
 3300
 aaaaaaaaaa aaaaaaaaaa aaa
 3323

<210> 2960

<211> 868

<212> PRT

<213> Homo sapiens

<400> 2960

Met Ala Thr Phe Ile Ser Val Gln Leu Lys Lys Thr Ser Glu Val Asp
 1 5 10 15
 Leu Ala Lys Pro Leu Val Lys Phe Ile Gln Gln Thr Tyr Pro Ser Gly
 20 25 30
 Gly Glu Glu Gln Ala Gln Tyr Cys Arg Ala Ala Glu Glu Leu Ser Lys
 35 40 45
 Leu Arg Arg Ala Ala Val Gly Arg Pro Leu Asp Lys His Glu Gly Ala
 50 55 60
 Leu Glu Thr Leu Leu Arg Tyr Tyr Asp Gln Ile Cys Ser Ile Glu Pro
 65 70 75 80
 Lys Phe Pro Phe Ser Glu Asn Gln Ile Cys Leu Thr Phe Thr Trp Lys
 85 90 95
 Asp Ala Phe Asp Lys Gly Ser Leu Phe Gly Gly Ser Val Lys Leu Ala
 100 105 110
 Leu Ala Ser Leu Gly Tyr Glu Lys Ser Cys Val Leu Phe Asn Cys Ala
 115 120 125
 Ala Leu Ala Ser Gln Ile Ala Ala Glu Gln Asn Leu Asp Asn Asp Glu
 130 135 140
 Gly Leu Lys Ile Ala Ala Lys His Tyr Gln Phe Ala Ser Gly Ala Phe
 145 150 155 160
 Leu His Ile Lys Glu Thr Val Leu Ser Ala Leu Ser Arg Glu Pro Thr

595 600 605
 Gly Gly Leu Thr Thr Lys Val Gln Glu Ser Leu Lys Lys Gln Glu Gly
 610 615 620
 Leu Leu Lys Asn Ile Gln Val Ser His Gln Glu Phe Ser Lys Met Lys
 625 630 635 640
 Gln Ser Asn Asn Glu Ala Asn Leu Arg Glu Glu Val Leu Lys Asn Leu
 645 650 655
 Ala Thr Ala Tyr Asp Asn Phe Val Glu Leu Val Ala Asn Leu Lys Glu
 660 665 670
 Gly Thr Lys Phe Tyr Asn Glu Leu Thr Glu Ile Leu Val Arg Phe Gln
 675 680 685
 Asn Lys Cys Ser Asp Ile Val Phe Ala Arg Lys Thr Glu Arg Asp Glu
 690 695 700
 Leu Leu Lys Asp Leu Gln Gln Ser Ile Ala Arg Glu Pro Ser Ala Pro
 705 710 715 720
 Ser Ile Pro Thr Pro Ala Tyr Gln Ser Leu Pro Ala Gly Gly His Ala
 725 730 735
 Pro Thr Pro Pro Thr Pro Ala Pro Arg Thr Met Pro Pro Thr Lys Pro
 740 745 750
 Gln Pro Pro Ala Arg Pro Pro Pro Pro Val Leu Pro Ala Asn Arg Ala
 755 760 765
 Pro Ser Ala Thr Ala Pro Ser Pro Val Gly Ala Gly Thr Ala Ala Pro
 770 775 780
 Ala Pro Ser Gln Thr Pro Gly Ser Ala Pro Pro Pro Gln Ala Gln Gly
 785 790 795 800
 Pro Pro Tyr Pro Thr Tyr Pro Gly Tyr Pro Gly Tyr Cys Gln Met Pro
 805 810 815
 Met Pro Met Gly Tyr Asn Pro Tyr Ala Tyr Gly Gln Tyr Asn Met Pro
 820 825 830
 Tyr Pro Pro Val Tyr His Gln Ser Pro Gly Gln Ala Pro Tyr Pro Gly
 835 840 845
 Pro Gln Gln Pro Ser Tyr Pro Phe Pro Gln Pro Pro Gln Gln Ser Tyr
 850 855 860
 Tyr Pro Gln Gln
 865

<210> 2961

<211> 434

<212> DNA

<213> Homo sapiens

<400> 2961

gccgcggctc cagggaacgg ccgcgcacgc gcgccccggc tgctttctgct cttttctgggt
 60
 ccgctgctgt gggcccccgc tgcggtccgg gccggcccag atgaagacct tagcnaccgg
 120
 aacaaagaac ccgcggcgcc ggcccagcag ctgcagccgc agcctgtggc tgtgcagggc
 180
 cccgagccgg ccggggtcga ggctaatttt tgtatttttt ttgtagagac aggtatttcg
 240
 catgttgacc agtgggtctca agctcctggg ctcaagtaat ccgcccgact cggctctcca
 300
 aagtgtggg attacaggca tgagccaccg tgccctggcca gattttgttt ggctatgcc
 360

ccacagtcac cccacagggtc tatacatact atgtttcaac tgtattattt gccatttttg
 420
 gcattagaat gcat
 434

<210> 2962
 <211> 92
 <212> PRT
 <213> Homo sapiens

<400> 2962
 Ala Ala Ala Pro Gly Asn Gly Arg Ala Ser Ala Pro Arg Leu Leu Leu
 1 5 10 15
 Leu Phe Leu Val Pro Leu Leu Trp Ala Pro Ala Ala Val Arg Ala Gly
 20 25 30
 Pro Asp Glu Asp Leu Ser Xaa Arg Asn Lys Glu Pro Pro Ala Pro Ala
 35 40 45
 Gln Gln Leu Gln Pro Gln Pro Val Ala Val Gln Gly Pro Glu Pro Ala
 50 55 60
 Arg Val Glu Ala Asn Phe Cys Ile Phe Phe Val Glu Thr Gly Phe Arg
 65 70 75 80
 His Val Asp Gln Trp Ser Gln Ala Pro Gly Leu Lys
 85 90

<210> 2963
 <211> 567
 <212> DNA
 <213> Homo sapiens

<400> 2963
 nacgcgtgct gcccgggctg gaagaggacc agcgggcttc ctggggcctg tggagcagggt
 60
 gagggtcatg tccctcggcg cccgggtgta ggagggcgac tgttcccaaa tcttcacga
 120
 acgctcctgc tgcttttctt gaaccccgag caaagcacca ccttgccgca gagcaccac
 180
 tcctatagcag ctgccccac aggggtgctgg ggacccaact gagctggtga ccagcctccc
 240
 ccgcccacag caatatgcca gccgccatgc cggaacggag ggagctgtgt ccagcctggc
 300
 cgctgcgct gccctgcagg atggcggggt gacacttgcc agtcagggtga ggctggctct
 360
 accctggggg gccctggaag ggtctggggc acctctttgc atgtcgtggg gttactgatg
 420
 gtccatgagt ggggtggtgt gaagggagct gtgtgggcag gaccctccc gcaggcatgg
 480
 ccgcctgaca cccggttttc tgcagatgtg gatgaatgca gtgataggag gggcggtgt
 540
 cccagcgggt gtgtccaccc cgcgggt
 567

<210> 2964
 <211> 115
 <212> PRT

<213> Homo sapiens

<400> 2964

Ala Gly Asp Gln Pro Pro Pro Thr Ala Ile Cys Gln Pro Pro Cys
 1 5 10 15
 Arg Asn Gly Gly Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro Ala
 20 25 30
 Gly Trp Arg Gly Asp Thr Cys Gln Ser Gly Glu Ala Gly Ser Thr Leu
 35 40 45
 Gly Gly Pro Gly Arg Val Trp Gly Thr Ser Leu His Val Val Gly Leu
 50 55 60
 Leu Met Val His Glu Trp Val Val Val Lys Gly Ala Val Trp Ala Gly
 65 70 75 80
 Pro Leu Pro Gln Ala Trp Pro Pro Asp Thr Pro Phe Pro Ala Asp Val
 85 90 95
 Asp Glu Cys Ser Asp Arg Arg Gly Gly Cys Pro Gln Arg Cys Val His
 100 105 110
 Pro Ala Gly
 115

<210> 2965

<211> 3739

<212> DNA

<213> Homo sapiens

<400> 2965

acgcgtgggg ctgttttagg ttggccataa gttaagactg gtgccttact ggccaactca
 60
 tccagctcag cctgggacag ctggttgaaac tggagccggc ctcgccttat cccaactgtt
 120
 ggacgtcgaa caattgcata gccgttcctg tagctcagcg tctgacttct gtggaaggct
 180
 gttttcgtag agtccttaaa ggacgtgccc ggaagaaagg gcaagccatg cacgggattg
 240
 gacaccattg cagccggccc cgccctccgc tcgtgggagt tcgggatgtt tagcgttacc
 300
 atggatcctg gaggtgcccg cgaacactgc ttgtgcctg ggcaaccgga gaggacgaag
 360
 caggacctag gtggcggcgg tggtaaccgc tgcaatggtg tccaatcccg tgcatggctt
 420
 gcccttttct cccggcacgt cctttaagga ctctacgaaa acagcccttc acagaagtca
 480
 gacgtctgagc tacaggaacg gctatgcaat tgttcgacgt ccaacagttg ggataggcgg
 540
 agaccggctc cagttcaacc agctgtccca ggctgagctg gatgagttgg ccagtaaggc
 600
 accagctetta acttatggcc aacctaaaca agccccacct gcggatttta ttctgcgcga
 660
 tgtgcccctt gacaaaaagg tactgaaatt tgatgcctat ttccaagaag atgttcctat
 720
 gtcaactgag gaacagtata ggatccgtca ggtgaacatt tactattatc tagaagatga
 780
 cagcatgtct gtcatagagc ctgttgtaga aaattctgga atccttcaag gcaagttaat
 840

aaaacgccag cggctagcca agaattgaccg gggtgaccat taccattgga aagacctaaa
900
tcgagggaata aacatcacaa tttatggcaa aactttccgc gttgttgact gtgaccaatt
960
cacacagga tttttgaaa gccaaaggaat tgagttaaat ccaccagaga agatggctct
1020
tgatccttac actgaactcc gaaaacagcc tcttcgtaag tatgtcacc catcagactt
1080
tgatcaactc aagcaatttc tcaccttga caaacaggta agtgacatag gaaccacaat
1140
aggcttactt atttccaaat gtgacctaca tttattggca aaaggtttg gtgctgtat
1200
tggtaactat tttgaaacat tacagctata attgaactgt ttggacacag tactgtcttt
1260
ctgctttcat caagggttac aggtacagga atgcctacat ttcatatgga gatccaaaga
1320
agatcgtgga gttgcggagt tgttttgtga acctcaccaa acatttaaat ctcaagcaa
1380
ttcctgagct acatctgctt cccaccttac gtttccaatt gacaatttct ttccttaaa
1440
atgagctaat ttcatagact cctttgtgaa accataaatc gattattagg aaatttcaca
1500
aatatgcata catgtagggt gtaatgttaa aatgtttaat ttcacagaag cccactaca
1560
gatgcttctt tgttaaatgt tatattaata ttggagtcca gaatgttctg agcattttcc
1620
aactctgttc caaccttctt aatctctctc cttgtgagct gatgtgtata agcagattta
1680
aatccttccc tttctgtact aaaggagaaa agaaaaaggaa gagatcacc tcagtgttcc
1740
tttctgtctc cttttcttta gacatttaac cccttttagt tcagaaaaatg taaactagca
1800
ctagcatggg cttttaagga ttttgttcat atcagtcata tatctgttat tattatgtat
1860
ttaaagattg tgtttatttc cagatttga agaagcctag ccaaaaaaaaa aaaaaaaaaa
1920
attgtgttta tattattgct agaagatatg tgttgatggg accaaaaaaaa gactgggttaa
1980
taaaaaaaaa tttttcttac actaattata tataaacat attcacatgt acctttatta
2040
atatatatat accactatgt aaagaacttc attgctcttt taatttagct tctctttcac
2100
tgactaatat tttggatcaa agtgagctct tcttttttgg cacaaactta taactctatt
2160
atttaattct ttccagctgc tgacatatag tacataattt cagatgtttt agtatgtttg
2220
atgaatattt cttttttttc aatttaccoc atctgaaatt acttcatagt ctttccagct
2280
agtctttcca tcgttgatac ataattgcc aagtagccaa gttgaactcc ctacttttag
2340
gattcttgag tcactacttt ggattcttca aaggctcttc gattctatgc aatctgggat
2400
gatcacagaca gcatgtatgg tgaatgtcgg acctacatca ttcattacta tcttatggat
2460

gatacgggtg aaattcgaga ggtccacgaa cggaatgatg ggagagatcc tttccactc
 2520
 ctaatgaacc gccagcgtgt gcccaaatgt ttggtggaaa atgcaaaaga cttccctcag
 2580
 tgggtgctag aaatctctga ccaagaagtg ttggaatggt atactgctaa agacttcatt
 2640
 gttgggaagt cactcactat ccttgggaga actttcttca tttatgattg tgatccattt
 2700
 actcgacggt attacaaaga gaagtgttga atcactgatt taccacgtat tgatgtgagc
 2760
 aagcgggaac cacctccagt aaaacaggag ttgcctcctt ataacggttt tggactagt
 2820
 gaagattctg ctacagaattg ttttgctctc attccaaaag ctccaaaaaa agacgttatt
 2880
 aaaaatgctg tgaatgataa caaggtgctt cggtatttgg ctgtactgga atcccccatc
 2940
 ccagaagaca aagaccgcag atttgtcttc tcttactttc tagctaccga catgatcagt
 3000
 atctttgagc ctctgttctg caattctggt atcattgggg gcaagtacct tggcaggact
 3060
 aaagtgttta aaccatactc tacagtgagc aacctgtct actatggccc cagtgacttc
 3120
 ttcattgggt ctgtgattga agtgttttgg caccggttca tcatccttga tacagacgag
 3180
 tatgttttga aatacatgga gagcaacgct gcccgattat caccagaagc actcgcgtca
 3240
 attcagaacc atgtccgaaa gcgagagcgc cctgctccag aagcagaagc caagcaaaact
 3300
 gaaaaggatc caggcgtgca ggaattggaa gcattaatag acacaattca gaagcaactg
 3360
 aaagatcact catgcaaaga caacattcgt gaggcatttc aaatttatga caaggaagct
 3420
 tcaggatatg tggacagaga catgttcttt aaaatctgtg aatcgcttaa cgtcccagtg
 3480
 gatgactcct tgggttaagga gttactcagg atgtgctctc atggagaagg caaaattaac
 3540
 tactataact ttgtctgtgc tttctcaaac tgacctgctg atgagaaaat gcaagacaat
 3600
 ttttgatact ggaactatgc tttgaaatac accttacct cttcatagag gcatttacag
 3660
 ggttcctgaa gttttatttc tgttttgggt cttatttcac tcctactgaa gtgcgaaacta
 3720
 aattggatca aaaaaaaaaa
 3739

<210> 2966

<211> 386

<212> PRT

<213> Homo sapiens

<400> 2966

Met Tyr Gly Glu Cys Arg Thr Tyr Ile Ile His Tyr Tyr Leu Met Asp

1

5

10

15

Asp Thr Val Glu Ile Arg Glu Val His Glu Arg Asn Asp Gly Arg Asp

	20		25		30
Pro	Phe	Pro	Leu	Leu	Met
	35			Asn	Arg
Glu	Asn	Ala	Lys	Asn	Phe
	50			Pro	Gln
Glu	Val	Leu	Glu	Trp	Tyr
	65			Thr	Ala
Leu	Thr	Ile	Leu	Gly	Arg
	85			Thr	Phe
Thr	Arg	Arg	Tyr	Tyr	Lys
	100			Glu	Lys
Ile	Asp	Val	Ser	Lys	Arg
	115			Glu	Pro
Pro	Tyr	Asn	Gly	Phe	Gly
	130			Leu	Val
Ala	Leu	Ile	Pro	Lys	Ala
	145			Pro	Lys
Asn	Asp	Asn	Lys	Val	Leu
	165			Arg	Tyr
Pro	Glu	Asp	Lys	Asp	Arg
	180			Arg	Phe
Asp	Met	Ile	Ser	Ile	Phe
	195			Glu	Pro
Gly	Gly	Lys	Tyr	Leu	Gly
	210			Arg	Thr
Val	Asp	Asn	Pro	Val	Tyr
	225			Tyr	Gly
Val	Ile	Glu	Val	Phe	Gly
	245			His	Arg
Tyr	Val	Leu	Lys	Tyr	Met
	260			Glu	Ser
Ala	Leu	Ala	Ser	Ile	Gln
	275			Asn	His
Pro	Glu	Ala	Glu	Ser	Lys
	290			Gln	Thr
Leu	Glu	Ala	Leu	Ile	Asp
	305			Thr	Ile
Cys	Lys	Asp	Asn	Ile	Arg
	325			Glu	Ala
Ser	Gly	Tyr	Val	Asp	Arg
	340			Asp	Met
Asn	Val	Pro	Val	Asp	Asp
	355			Ser	Leu
Ser	His	Gly	Glu	Gly	Lys
	370			Ile	Asn
Ser	Asn				
	385				

<210> 2967

<211> 1103

<212> DNA

<213> Homo sapiens

<400> 2967

cctgtctctgt agagccggcg gcaaccgggt agcttggcca ggttgtgagg aaccgcagcg
 60
 cccgcaggac cgggcccgtg agcctgcagc cgccccgcgc cgtgacctgc gaccttagac
 120
 cccgactacc ctttggctca gccgcgcgc cccaggcccg gccggggcgg cgcgacggga
 180
 ggatgagcgg cgggcccggg aaggaggagc cgcctcagcc gcagctggcc aacggggccc
 240
 tcaaaagtctc cgtctggagt aagggtgctgc ggagcggcgg cctgggagga taaggatgaa
 300
 ttttttagatg tgatctactg gttccgacag atcattgctg tggctcctggg tgtcatttgg
 360
 ggagttttgc cattaacgagg gttcttggga atagcaggat tctgcctgat caatgcagga
 420
 gtctctgtacc tctacttcag caattaccta cagattgatg aggaagaata tgggtggcacg
 480
 tgggagctca cgaaggaagg gtttatgacc tcttttgccn ttgttcattg tctattggat
 540
 catcttttac actgccatcc attatgactg atgggtgtaca gtcaccaagt gtcctcatc
 600
 cagtcaccaag gacctcttgg attacagcac aggaacttga tcgttgggga accccagccc
 660
 cttggaactt ggaagaccgg tgtttcctgg accgcgaatc agtgtgttgg gcacagtggt
 720
 tttctgcaag ggttgtgacc tgaactttt taaaaaccac ccaccttgg ggaagcattt
 780
 ctgaatttat ccatacccaa ccatttcttc ttggatacca tcaagtaaca gctattattt
 840
 gccaaagtga gctgtcattt aatttgatgc acctctggat tcagatgaaa cattaaattg
 900
 tcttctcga ttctccatcg ggtgtagagt ttttaaaacta tcaatggcat ttcaagtctt
 960
 ctgaaacagc atggctgtat gtgcgtggtc catagcacag tacatgcagc atctaaataag
 1020
 agtttcattt gtgaatgtt ttcacatact tgaataaatc aaatctttaa ttgagaaaaa
 1080
 aaaaaaaaaa aaaaaaaaaa aaa
 1103

<210> 2968

<211> 126

<212> PRT

<213> Homo sapiens

<400> 2968

Ala	Ala	Gly	Gly	Arg	Arg	Ser	Arg	Leu	Ser	Arg	Ser	Trp	Pro	Thr
1			5					10					15	
Gly	Pro	Ser	Lys	Ser	Pro	Ser	Gly	Val	Arg	Cys	Cys	Gly	Ala	Ala
			20					25				30		
Trp	Glu	Asp	Lys	Asp	Glu	Phe	Leu	Asp	Val	Ile	Tyr	Trp	Phe	Arg
			35				40					45		
Ile	Ile	Ala	Val	Val	Leu	Gly	Val	Ile	Trp	Gly	Val	Leu	Pro	Leu
			50			55					60			
Gly	Phe	Leu	Gly	Ile	Ala	Gly	Phe	Cys	Leu	Ile	Asn	Ala	Gly	Val
														Leu


```

65              70              75              80
Tyr Leu Tyr Phe Ser Asn Tyr Leu Gln Ile Asp Glu Glu Glu Tyr Gly
85
Gly Thr Trp Glu Leu Thr Lys Glu Gly Phe Met Thr Ser Phe Ala Xaa
100              105              110
Val His Gly His Leu Asp His Leu Leu His Cys His Pro Leu
115              120              125

```

<210> 2969

<211> 667

<212> DNA

<213> Homo sapiens

<400> 2969

```

atcagcgccct taggggacca gagcaagaag gtggtgcacg ttcctacag ggactccaag
60
ctcactcggc tctccagga ttcgctgggg ggcaacagcc agaccatcat gatcgctcg
120
gggagccctt caaacgaga ttcatggag accctcaaca cactcaata tgccaatcgg
180
gcccgcaaca tcaagaacaa ggtggtagtg aaccaagaca agaccgccag caaatcaatg
240
cactgcgggc tgagattgct cggtgcaga tggagctgat ggagtnataa ggcgggcaag
300
cgagtgatag gagaggatgg cgctgagggc tatagtgatc tgttccgaga gaatgccatg
360
ctacagaagg agaattgggc cctgcggctg cggtgaaag ccattgcagga ggccatcgat
420
gccatcaaca accgcgtcac ccagctcatg agccaggagg ccaacctgct gctagccaag
480
gccggcgatg gcaatgaggc cattggtgcg ctgatccaga actacatccg ggagatcgag
540
gagctacgga ctaagcttct agagagtga gccatgaacg agtcctgcg ccgcagcctc
600
tcacgggcct cggtcaggag ccctactccc ctgggtgctt ctccagccgc cccgccttc
660
ggggggca
667

```

<210> 2970

<211> 92

<212> PRT

<213> Homo sapiens

<400> 2970

```

Ile Ser Ala Leu Gly Asp Gln Ser Lys Lys Val Val His Val Pro Tyr
1              5              10              15
Arg Asp Ser Lys Leu Thr Arg Leu Leu Gln Asp Ser Leu Gly Gly Asn
20              25              30
Ser Gln Thr Ile Met Ile Ala Trp Gly Ser Pro Ser Asn Arg Asp Phe
35              40              45
Met Glu Thr Leu Asn Thr Leu Lys Tyr Ala Asn Arg Ala Arg Asn Ile
50              55              60
Lys Asn Lys Val Val Val Asn Gln Asp Lys Thr Ala Ser Lys Ser Met

```


aaagcagagg tctccaggac agatcaccca agccatctcc agggaggacaa gccaaagccc
1380
ttgcttttcc catccctcca caacaagcat ccacagtcga aaatcacage tggcctggag
1440
cacaaaaatg gtgagataaa gccaaagagt agggagaagg ggggtcttat tccaggtca
1500
acaaaggatt cagatgattg ggctgacttg gatgacttgg atttcagtc atccctcagc
1560
aggattgacc tgaaaaacaa gaaaagacag agtgatgaca ctctctgcag gtttgagagt
1620
gttttgacc tgaagccctc tgagcctgtg ggcacaggaa acagtgcacc caccagagc
1680
tcatacagc ggcgagacac gccaccctg agatctgcag ccaagcagca ctatttgaag
1740
cactctcgat acttgccctg gatcagtata agaaatggca tactctcgaa tccaggcaag
1800
gaatttatcc cacctaattc atggctctagt tctgggtctg ctggaaaate ttcagggaca
1860
atgtcagtaa tcagcaaaagt aaattcagtt ggttccagct ctacaagttc tagtggaactg
1920
actggaaact atgtcccttc ctttctgaaa aaagaaatcg gttctgctat gcagagggtta
1980
cacttagcac ctattccaga ccctccctc ggttattcct cctgaaggc catgagacct
2040
catctctggc gaccattctt ccacaccag cctagaagca ctctggggtt gataccacgg
2100
ctccagcgc ccagccagat gcattggcgg acagactggg ctccaagta cgcactctcg
2160
cgatgactgt ctgccttggg gatgaatctc ttccctaggga gaagcaggat actttccctc
2220
agctgactgg tgttctacct gcaagatgtg cagagggcat aaaagcaaat caaacttta
2280
tagttattct tctgaactaa gacatgtcaa tattcttttt taaagttttt ttttaaaaa
2340
ttgatttgaa tgcagtaggc ttttttgtat aaaattattt tattctaaaa ctgggtccca
2400
ttattttctt aaacaacagc attttgtata tatggattat gttttagcat ttatacagt
2460
caactttgta atgaactttt taaaaattaa ttgattttcc tttggggttc cagataatat
2520
tttctacaga ttttgaaaaa tgtaataata ttaatgcagt attgcaacag ggggtgcaatt
2580
taaggctatg tgatagaggg ttatttactc agtggtgtga gatatttatg aagtgttgaa
2640
atttcaagtg tggctcacta ggtacttcag gcttctcttg actgttgtta gaaaagtgt
2700
ctctgcttt tcttagtagg tcattgggtt gatttttga taccactctg ctgttctaaa
2760
aggactatta tattatataa ttcactttgt tttacttttg tccccagat gaaagaactc
2820
taagtaaata cattttaaaa aatttttctg acacccttta atgtgggtgc agatctcaga
2880
tgaaccaag ctaattata ctatgccatt atattctaat ttattccatt tttgaaatca
2940

agttgtatgt gtaccaataa aagagatttc tgcttcaaaa ggctctcaac atgaagggtta
3000
acacagtc aa tcaaaccttac attcctgcca agatgcatgg ccaaaaaact aagtatcaaa
3060
gcagcagaag gtttttgatt atagtaactg agatggaatt ttgtgcctag ctgagttctc
3120
cagatctggc taggagcagt caatgactaa tgttctgtcc tagccaaatt ctgaggacaa
3180
tttggggagg agaaagagtt atggcagagg ttccactcat ctacaaagtc acagtcacat
3240
gccacatttg atctcctaac cctgggtgtag ttctcttcaa gagtgcagaa tttatttggt
3300
gggcagaggc tgttccattg agagggaatgt ttacagcagt ttcaaaaatg acaagtcag
3360
tttggagaca gaaaaagaca aaagggtccag tctcatccat ctctatatgg tacatttgcc
3420
tcactttatg ttgccttaaa ggcaagaggg aagggtacca tcagtgaacg caatgcaatc
3480
tcaacagtgat attgattcat attctcctag ggctcaaaact actctctatt ggttccagga
3540
taattgacaaa ttgaaccata tgtaagtaat cttttatttt ttattttttt ttgagacag
3600
agtctcactc tgcacccag gctggagtg c agtgggcga tcttagctct ctgcaacctc
3660
tgccctccag gtccaagcct cctgagtaac tgggactaca ggcgccgcc accacgccca
3720
gctaattttt tgtattttta gtagagacgg ggtttcactg tgttagccag gacggcctcg
3780
atctcctgac ctctgatcc accctcctcc acctcccaaa gtactgggat tacaggcatg
3840
agccactgca cccagccaag tgatcatttt tatagggttaa aatgataggg gaaatgaata
3900
tagacacttt catatgggtc aacctaatga cttggtaaat tattgccttg gtgtattaat
3960
aatatgttgc attctgaaca aataaccatg gcttccaag ggccctaacc taaaaatcgga
4020
gagtaattta tgctttggag aatttggtc aaatatatac ttgaccaagc accatgatcc
4080
ctagggggcat gagaaaagca cataatggat gtggatgtga taggtgggtct ttctctgtta
4140
acaagctggc agcaaaagct cagaaaatat atatgcaagc acaacttgaa gctgaattca
4200
ttctgtat atattctcaa ctctgtatct aaagcatcag aacatgtgtt ttgagagatg
4260
agtcctttac tataagggtta atatttattt tcatcttctg tattatatat gaaaagttaa
4320
ttaatgtgaa acctggccca gcttgctgga aagcagggtt taaattgtaa atattcetta
4380
gaggagcaaa tggattgttt aataccatag tctcagtaat ctgacttata taaggtcatt
4440
acatttttta actgaaaaac ctagttaacct gattattgca cattataaaa ttgtttttct
4500
aatactttat agggcccaac ttcagaaaaa acttcgcttt ttctctttta tgccttcggt
4560

tgtttaccag caagcaactt ccttggggaa gccaaacaca tttcataaa aaaatcaag
4620
tagctgatgt gcagttgaga aaactagagg actgaaaaa caaatTTTaa ctagcaaatg
4680
ctgtgaatta ctcttctctc ccttctctga aatgggtaaa ggacaaattg tgtaaaaaaa
4740
cctatgcact atagaaggga atagtaacca tttcttttgt ctctctgttt ctgttctgac
4800
tgagaaacctg cagccatttc ttgttacatg aaaacaaaa gctacttggt acctctattt
4860
tttgttacta tacaattatg aaatgtaatg taagacacca acagaaatga tatacctgta
4920
actgtacctt tcaggactat acctcattta cagtcagaaa gcttactggg atgtcaggaa
4980
atgatacagg gttggttctc atttctgtgc gaaatgagac agaaattcag tgacgaagggt
5040
gcgttgtagg ggtattgatg tgccccagggt agtgccagca gagtagggaa aactgcattt
5100
gcataaaaac tactcttgac atgattgttc attttacaaa aaaattccat taattaccaa
5160
gccctcccc agcccatgtg tgataggatt tatgtaggaa gaaacttgat tttcaataaa
5220
ttttttaaat gtatctcttg cctaaaggac tatatacatc taataaagta acactgtgtc
5280
atcttctgga gttatcaaaa attgtatata atcaagacaa cacaagaatt attttatttt
5340
tgagtgcata tacaggctact gttggagtgt atgggcacca tgctttctca tgaagtgcga
5400
tttccctacc atcaagccat tgtttgtgtc cattcaggag aggaaaaaaa ggaatttatg
5460
ctgtacattt cagttcagtg tatgaccaa agcaatatgt ttataagaag atgtttgaca
5520
tactaattat tttatatcat ttaaaccata ctgtagcaac ataatatatg gagctaattt
5580
gtagaattat ttttacgatt tccaacaaa tgtactgtac tgttatataa tttattgtga
5640
ggaccttctc atggaagcca ttaggaaaac aaactagagg taaatatcac attaatctgt
5700
attatcaatt tctcatagac actgtgctaa tgtgaatttt aaatgacctg catcaagtct
5760
ctgactctca gataactcag tacagatagc aattagtcag ctgatttgat tacaatggag
5820
taaccgacaa tatatttatt tataaagcac atattcataa taacgagaag aattcagaaa
5880
accacttaag caagaccctt ctgaaataaa aaatgttgct ttttaaatag tttgtcctaa
5940
ggtgttttaa acatgtcaac cttatgtaag gaaaaatttc ctggtccaaa taaagttgaa
6000
gtttaagaaa aattg
6015

<210> 2972

<211> 632

<212> PRT

<213> Homo sapiens

<400> 2972

```

Met Asn Arg Tyr Thr Thr Ile Arg Gln Leu Gly Asp Gly Thr Tyr Gly
 1          5          10          15
Ser Val Leu Leu Gly Arg Ser Ile Glu Ser Gly Glu Leu Ile Ala Ile
 20          25          30
Lys Lys Met Lys Arg Lys Phe Tyr Ser Trp Glu Glu Cys Met Asn Leu
 35          40          45
Arg Glu Val Lys Ser Leu Lys Lys Leu Asn His Ala Asn Val Val Lys
 50          55          60
Leu Lys Glu Val Ile Arg Glu Asn Asp His Leu Tyr Phe Ile Phe Glu
 65          70          75          80
Tyr Met Lys Glu Asn Leu Tyr Gln Leu Ile Lys Glu Arg Asn Lys Leu
 85          90          95
Phe Pro Glu Ser Ala Ile Arg Asn Ile Met Tyr Gln Ile Leu Gln Gly
100          105          110
Leu Ala Phe Ile His Lys His Gly Phe Phe His Arg Asp Leu Lys Pro
115          120          125
Glu Asn Leu Leu Cys Met Gly Pro Glu Leu Val Lys Ile Ala Asp Phe
130          135          140
Gly Leu Ala Arg Glu Ile Arg Ser Lys Pro Pro Tyr Thr Asp Tyr Val
145          150          155          160
Ser Thr Arg Trp Tyr Arg Ala Pro Glu Val Leu Leu Arg Ser Thr Asn
165          170          175          180
Tyr Ser Ser Pro Ile Asp Val Trp Ala Val Gly Cys Ile Met Ala Glu
180          185          190
Val Tyr Thr Leu Arg Pro Leu Phe Pro Gly Ala Ser Glu Ile Asp Thr
195          200          205
Ile Phe Lys Ile Cys Gln Val Leu Gly Thr Pro Lys Lys Thr Asp Trp
210          215          220
Pro Glu Gly Tyr Gln Leu Ser Ser Ala Met Asn Phe Arg Trp Pro Gln
225          230          235          240
Cys Val Pro Asn Asn Leu Lys Thr Leu Ile Pro Asn Ala Ser Ser Glu
245          250          255
Ala Val Gln Leu Leu Arg Asp Met Leu Gln Trp Asp Pro Lys Lys Arg
260          265          270
Pro Thr Ala Ser Gln Ala Leu Arg Tyr Pro Tyr Phe Gln Val Gly His
275          280          285
Pro Leu Gly Ser Thr Thr Gln Asn Leu Gln Asp Ser Glu Lys Pro Gln
290          295          300
Lys Gly Ile Leu Glu Lys Ala Gly Pro Pro Tyr Ile Lys Pro Val
305          310          315          320
Pro Pro Ala Gln Pro Pro Ala Lys Pro His Thr Arg Ile Ser Ser Arg
325          330          335
Gln His Gln Ala Ser Gln Pro Pro Leu His Leu Thr Tyr Pro Tyr Lys
340          345          350
Ala Glu Val Ser Arg Thr Asp His Pro Ser His Leu Gln Glu Asp Lys
355          360          365
Pro Ser Pro Leu Leu Phe Pro Ser Leu His Asn Lys His Pro Gln Ser
370          375          380
Lys Ile Thr Ala Gly Leu Glu His Lys Asn Gly Glu Ile Lys Pro Lys
385          390          395          400
Ser Arg Arg Arg Trp Gly Leu Ile Ser Arg Ser Thr Lys Asp Ser Asp

```

405 410 415
 Asp Trp Ala Asp Leu Asp Asp Leu Asp Phe Ser Pro Ser Leu Ser Arg
 420 425 430
 Ile Asp Leu Lys Asn Lys Lys Arg Gln Ser Asp Asp Thr Leu Cys Arg
 435 440 445
 Phe Glu Ser Val Leu Asp Leu Lys Pro Ser Glu Pro Val Gly Thr Gly
 450 455 460
 Asn Ser Ala Pro Thr Gln Thr Ser Tyr Gln Arg Arg Asp Thr Pro Thr
 465 470 475 480
 Leu Arg Ser Ala Ala Lys Gln His Tyr Leu Lys His Ser Arg Tyr Leu
 485 490 495
 Pro Gly Ile Ser Ile Arg Asn Gly Ile Leu Ser Asn Pro Gly Lys Glu
 500 505 510
 Phe Ile Pro Pro Asn Pro Trp Ser Ser Gly Leu Ser Gly Lys Ser
 515 520 525
 Ser Gly Thr Met Ser Val Ile Ser Lys Val Asn Ser Val Gly Ser Ser
 530 535 540
 Ser Thr Ser Ser Ser Gly Leu Thr Gly Asn Tyr Val Pro Ser Phe Leu
 545 550 555 560
 Lys Lys Glu Ile Gly Ser Ala Met Gln Arg Val His Leu Ala Pro Ile
 565 570 575
 Pro Asp Pro Ser Pro Gly Tyr Ser Ser Leu Lys Ala Met Arg Pro His
 580 585 590
 Pro Gly Arg Pro Phe Phe His Thr Gln Pro Arg Ser Thr Pro Gly Leu
 595 600 605
 Ile Pro Arg Pro Pro Ala Ala Gln Pro Val His Gly Arg Thr Asp Trp
 610 615 620
 Ala Ser Lys Tyr Ala Ser Arg Arg
 625 630

<210> 2973

<211> 858

<212> DNA

<213> Homo sapiens

<400> 2973

ggctactttt gggtcatggg aagaaccgac gatgtgatca attcttcaag ctaccggatc
 60
 gggcctgttg aagtggaaag tgccctggca gacatcctg ctgtcctgga gtcggctgtg
 120
 gtcagcagcc cagaacccat caggggagag gtggtaaagg catttatagt cttactcca
 180
 gcctactctc ctcatgacct agaggcacta acgcgggaac tccaggagca tgtgaaaagg
 240
 gtgactgtc catacaaaac cccaggaag gtggcctttg ttccagaact gccaaagacg
 300
 gttctggaa agatccaaag gagtaaatg cgaagtcagg agtgggggaa atgaggtgca
 360
 cccagggaag gccctgtaga cctccgaaga ctccacaaga aactaatgga tcaactggta
 420
 gtcccatggt ggagcatcat ctcttcgacc ctaaatgtt caaaggtgtg cagcttccaa
 480
 acggcatccc caggatcact gggcaatgct ggaaagagca aaagaatatc attggccctg
 540

atcacataga tgctgcgccc cctagcaaat gcttggtggg tgcacttctc cctctgtctg
 600
 ggggcaggct cagcatctgc ccactggtct cactaagagc tttcagattt ccctccatag
 660
 gacagggtac catagacttg gggcacttgt gggctactcat ttctgtccag tgggaatgta
 720
 aaggcttcat cctttgtatg taaccatttg gcaaaagtat gcaggaacat aaaataaaaat
 780
 atcctttagc tcaaaaattc tatcttcggg agtcaccaca aaagaaaaaa atcaaaaatg
 840
 agaaaatgtg gagtgcac
 858

<210> 2974

<211> 117

<212> PRT

<213> Homo sapiens

<400> 2974

Gly	Tyr	Phe	Trp	Phe	Met	Gly	Arg	Thr	Asp	Asp	Val	Ile	Asn	Ser	Ser
1			5						10				15		
Ser	Tyr	Arg	Ile	Gly	Pro	Val	Glu	Val	Glu	Ser	Ala	Leu	Ala	Glu	His
			20					25				30			
Pro	Ala	Val	Leu	Glu	Ser	Ala	Val	Val	Ser	Ser	Pro	Asp	Pro	Ile	Arg
			35				40				45				
Gly	Glu	Val	Val	Lys	Ala	Phe	Ile	Val	Leu	Thr	Pro	Ala	Tyr	Ser	Ser
			50			55			60						
His	Asp	Pro	Glu	Ala	Leu	Thr	Arg	Glu	Leu	Gln	Glu	His	Val	Lys	Arg
65				70					75					80	
Val	Thr	Ala	Pro	Tyr	Lys	Thr	Pro	Arg	Lys	Val	Ala	Phe	Val	Ser	Glu
				85					90				95		
Leu	Pro	Lys	Thr	Val	Ser	Gly	Lys	Ile	Gln	Arg	Ser	Lys	Leu	Arg	Ser
				100				105					110		
Gln	Glu	Trp	Gly	Lys											
			115												

<210> 2975

<211> 1425

<212> DNA

<213> Homo sapiens

<400> 2975

ccctcaacta ccgggaccca ggagttgaag ccggggttgg agggctctct ggggggtggg
 60
 gacacaatgt atacggtcaa tggcgtccac ccactgaccc tgcgctggga agagaccgc
 120
 acaccagaat cccagccaga tactccgcct ggcacccctc tggtgtccca agatgagaag
 180
 agagatgctg agctgccgaa gaagcgtatg gggaaagtaa accccggctg ggagaacttg
 240
 gagaagtgc tagtggtcac cgcagctggg gtgaaaccgg ggnncaaggt ggctgtgctt
 300
 gatctggacg ggacgctcat caccacacgc tctgggaagg tctttccac tggccccagt
 360

gactggagga tcttgtaccc agagattccc cgtaagctcc gagagctgga agccgagggc
 420
 tacaagctgg tgatcttcac caaccagatg agcatcgggc gcgggaagct gccagccgag
 480
 gagttcaagc ccaagtgga ggctgtggg gagaaagctgg gggtcccctt ccaggtgctg
 540
 gtggccacgc acgcaggctt gtaccggaag ccggtgacgg gcatgtggga ccattctgcg
 600
 gagcagacca acgacggcac gcccatatcc atcggggaca gcatcttttg gggagacgca
 660
 gccggagccc cgccaactg gggccgggg cggaagaaga aagacttctc ctgcgccgat
 720
 cgctgtttg cctcaacct tggcctgcc ttgccacgc ctgaggagt tttctcaag
 780
 tggccagcag ccggcttcga gctcccagcc tttgatccga ggactgtctc ccgctcaggg
 840
 cctctctgcc tccccagtc caggccctc ctgagcgcca gcccggaggt ggtgtgcgca
 900
 gtgggattcc ctggggccgg gaagtccacc tttctcaaga agcactctgt gtcggccgga
 960
 tatgtccacg tgacagggac acgctaggct cctggcagcg ctgtgtgacc acgtgtgaga
 1020
 cagccctgaa gcaagggaaa cgggtcgcca tcgacaacac aaacccagac gccgcagacc
 1080
 gcgccaggtg cgtccagtgt gcccgagccc cgggcgtccc ctgcccgtgc tttctcttca
 1140
 ccgccactct gggcaggcgc cgccacaaca accggtttcg agagatgacg gactcctctc
 1200
 atatccccgt gtcagacatg gtcattgtat gctacaggaa gcagttcgag cccccaacgc
 1260
 tggctgaagg cttctctgcc atcctggaga tcccgttccg gctatgggtg gagccgaggg
 1320
 tggggcggct gtactgccag ttctccgagg gctgagcccc ccagctccc ctccacaata
 1380
 aacgctgttt ctcttgaaa aaaaaaaaaa aaaaaaaaaa aaaaa
 1425

<210> 2976

<211> 328

<212> PRT

<213> Homo sapiens

<400> 2976

Pro Ser Thr Thr Gly Thr Gln Glu Leu Lys Pro Gly Leu Glu Gly Ser
 1 5 10 15
 Leu Gly Val Gly Asp Thr Met Tyr Thr Val Asn Gly Val His Pro Leu
 20 25 30
 Thr Leu Arg Trp Glu Glu Thr Arg Thr Pro Glu Ser Gln Pro Asp Thr
 35 40 45
 Pro Pro Gly Thr Pro Leu Val Ser Gln Asp Glu Lys Arg Asp Ala Glu
 50 55 60
 Leu Pro Lys Lys Arg Met Gly Lys Ser Asn Pro Gly Trp Glu Asn Leu
 65 70 75 80
 Glu Lys Leu Leu Val Phe Thr Ala Ala Gly Val Lys Pro Gly Xaa Lys

cgctgcctcg ccaaaagccta tgttcgaggg tctgggaccc ggcttcgtga agcagccagt
 540
 gcccgttccc ggcctctccc tgtacatgtg cgggagggaag gtgtggtgct ggagggtgtg
 600
 gcatggctag caggaggcac agtgtaccgc ggggagactg cctccctgct gtgcaacatc
 660
 tctgtgctgg gtggccccc aggactgcgg ctggcccca gctggtgggt ggagcgacca
 720
 gaggacggag agctcagctc tgtccctgcc cagctggtgg gtggcgtagg ccaggatggt
 780
 gtggcagagc tgggagtcgg gcctggagga ggcctgtca gcgtagagct ggtggggccc
 840
 cgaagccatc ggctgagact acacagcttg gggcccgagg atgaaggcgt gtaccactgt
 900
 gcccccagcg cctgggtgca gcatgccgac tacagctggt accaggcggg cagtgcccg
 960
 tcaggggcctg ttacagtcta cccctacatg catgccctgg acacctatt tgtgcctctg
 1020
 ctgggtggga caggggtggc cctagtcact ggtgccactg tccttggtac catcacttgc
 1080
 tgcttcata gaaggtctcg aaaacggtga tcccttactc cccagccac accgggcacc
 1140
 cttttcaggt cttgcagggt tgcactgtct tccggcccag ctccaagccc tcctctgggt
 1200
 gcctggacac cctctccctc tgtccactct tcctttaatt tatttgacct cccactaccc
 1260
 agaattggag acgtgcctcc cctcccccac tcctccctc ccaagccct cctctgggcc
 1320
 ttctgttctt gatctcttag ggatcctata gggaggccat ttctgtctct ggaattagtt
 1380
 tttctaaaat gtgaataaac ttgttttata aaaagcaaaa
 1420

<210> 2978

<211> 369

<212> PRT

<213> Homo sapiens

<400> 2978

Xaa Ser Asn Ile His Ala Glu Tyr Arg Met Val Val Gly Gly Ala Gln
 1 5 10 15
 Ala Gly Asp Ala Gly Thr Tyr His Cys Thr Ala Ala Glu Trp Ile Gln
 20 25 30
 Asp Pro Asp Gly Ser Trp Ala Gln Ile Ala Glu Lys Arg Ala Val Leu
 35 40 45
 Ala His Val Asp Val Gln Thr Leu Ser Ser Gln Leu Ala Val Thr Val
 50 55 60
 Gly Pro Gly Glu Arg Arg Ile Gly Pro Gly Glu Pro Leu Glu Leu Leu
 65 70 75 80
 Cys Asn Val Ser Gly Ala Leu Pro Pro Ala Gly Arg His Ala Ala Tyr
 85 90 95
 Ser Val Gly Trp Glu Met Ala Pro Ala Gly Ala Pro Gly Pro Gly Arg
 100 105 110
 Leu Val Ala Gln Leu Asp Thr Glu Gly Val Gly Ser Leu Xaa Ala Leu

115 120 125
 Ala Met Arg Ala Asp Xaa Ile Ala Met Glu Lys Val Ala Ser Arg Thr
 130 135 140
 Tyr Arg Leu Arg Leu Glu Ala Ala Arg Pro Gly Asp Ala Gly Thr Tyr
 145 150 155 160
 Arg Cys Leu Ala Lys Ala Tyr Val Arg Gly Ser Gly Thr Arg Leu Arg
 165 170 175
 Glu Ala Ala Ser Ala Arg Ser Arg Pro Leu Pro Val His Val Arg Glu
 180 185 190
 Glu Gly Val Val Leu Glu Ala Val Ala Trp Leu Ala Gly Gly Thr Val
 195 200 205
 Tyr Arg Gly Glu Thr Ala Ser Leu Leu Cys Asn Ile Ser Val Arg Gly
 210 215 220
 Gly Pro Pro Gly Leu Arg Leu Ala Ala Ser Trp Trp Val Glu Arg Pro
 225 230 235 240
 Glu Asp Gly Glu Leu Ser Ser Val Pro Ala Gln Leu Val Gly Gly Val
 245 250 255
 Gly Gln Asp Gly Val Ala Glu Leu Gly Val Arg Pro Gly Gly Gly Pro
 260 265 270
 Val Ser Val Glu Leu Val Gly Pro Arg Ser His Arg Leu Arg Leu His
 275 280 285
 Ser Leu Gly Pro Glu Asp Glu Gly Val Tyr His Cys Ala Pro Ser Ala
 290 295 300
 Trp Val Gln His Ala Asp Tyr Ser Trp Tyr Gln Ala Gly Ser Ala Arg
 305 310 315 320
 Ser Gly Pro Val Thr Val Tyr Pro Tyr Met His Ala Leu Asp Thr Leu
 325 330 335
 Phe Val Pro Leu Leu Val Gly Thr Gly Val Ala Leu Val Thr Gly Ala
 340 345 350
 Thr Val Leu Gly Thr Ile Thr Cys Cys Phe Met Lys Arg Leu Arg Lys
 355 360 365
 Arg

<210> 2979

<211> 2191

<212> DNA

<213> Homo sapiens

<400> 2979

tttttttttt tttttttttt tttttttttt tttttttttt ccttgtcagg gttattttca
 60
 tcagctaaca ttcattctcg acctagacaa aaacaattag atgattatga cttgcttttc
 120
 catcatcaac tcattttttt gtatgaataa ccaaaaaatt tcttcaacac ttttttttaa
 180
 gaagaagcta taaataaata aagcttttaa caatcctggg ttcaagttaa acagtctccag
 240
 ttcccgaaaa gttcacagcc ttgtttttgt ggcagttctg ctgttctctg cttcccccct
 300
 caggagggga cgtttgcagg tctgggggtc ctggtgacta agctgttagc tccactccct
 360
 gccgttttcc gtcttcacag ccttggggagg gccccgggtg acagagtcct tacaatttag
 420

gagatgctgc tggcaaagga actggtgacc caaagcaggt ggcctgaatg ggaagtgccca
480
ggctggacac ttgggggctg agggcactgc cagctgccgc cgcctctgga cacctcagcc
540
cggcgctggc ccgagaggag actgctttcc aaatgcagcg aagagactga gacaagacc
600
gtgcttcctg gtgagttggg atgcggggca taagttaaca catattccaa tatgtacaaa
660
acaacctcgc ctacggcccg cgacccagg aagcccatgg tgaaggtag gtccacctga
720
gccaggcctc tggctgggtg tccacctcct gccgggaagc caaggtagcc cagctggctt
780
gtgcaagacc tcacaatccc ctgaacgtgt tctcctcct ccaaggtagt caccacccc
840
catgttagt gtccgagcag attcccattg accctgacct cctttgaaa gaaccacacc
900
actaaatccc cttggcactc acttccttag tgtgatcat ccaccaggg aggtggccct
960
gcgcggcgct ggcacgctgt ccacctgcc ctgttgacca tctgtcctt ggaccccaaa
1020
gtaaaatggg gccagtgtag gagacctgag ggtggggccc ttatgccaga cctccagggg
1080
tagcgacctc acctgacccc agcttcggct tctctgtctg cagaaggcgc tctgtcccaa
1140
gccctgtgtg acccagctct ccaccccatg gtgtggcaac tgtgttggtg gagtggaaagc
1200
tggggcgagg gagaggaccc ccaccaaccc cagccagggt gcctgcagag cccactgccc
1260
tacctctgag tcagcctgcg gcctgagcac accaatctac tctctggggg atccagggtg
1320
ctgtgtggg cctccttaga gacaccagct tggcctccta gggcataagg aatggggaca
1380
gggcacaggg cagctgctta caacggatat gcaacatggc ttttggtagg gccattgcag
1440
ccagtgggga aacctgcgcg gctgctggga acagagcatg gccagccttt tgccaggggg
1500
tggggagcat ggggaaatgc aaggagagcc aggggtggga gggctgagt tctgtgtga
1560
gggaggccac ctacagctgt ttgccaaag ctagttaga atctgaaagc tcgagtccca
1620
gttcctggcc atacagagcc actgtgtgtc gagggtagcg ctctgggga ggggctatgg
1680
tccatgctc cagccgatgg aagcctgatg aacttaatcc gtacgctggt gggagcagtg
1740
gtattgagc tcttgagtat gtgtttcggg gatggggctg gggcagcctg ctagcaaatc
1800
ccagtgggtc agaaaggaga acagaggcag gggagccctc ggtcccccag ccttcacgtc
1860
tgagccaggc ctgctgggat ggtcacctcc caaggggcag ccgcggactc acgcacaagt
1920
ggcagcatcc ctggccaaag cctcccccact cctgggctgc cagttggccc gaggaaggcc
1980
ggcaatgcag ctcgggccta ctacccaaac cctgggcaaa aggcaggcca tgcctgtgtc
2040

ccagcagccg cgcagggttcc cccactggct gcaatggccc taccaaaagc catgttgcat
 2100
 atccgttgta agcacgtgcc ctgtgccctg tccccattcc ttatgcccta ggaggccaag
 2160
 ctgggtgtctc taggagggcc cacacaggca c
 2191

<210> 2980
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 2980
 Met Gly Thr Gly His Arg Ala Arg Ala Tyr Asn Gly Tyr Ala Thr Trp
 1 5 10 15
 Leu Leu Val Gly Pro Leu Gln Pro Val Gly Lys Pro Ala Arg Leu Leu
 20 25 30
 Gly Thr Glu His Gly Gln Pro Phe Ala Arg Gly Trp Gly Ala Trp Gly
 35 40 45
 Asn Ala Arg Arg Ala Arg Val Gly Arg Ala Glu Cys Leu Leu Ser Gly
 50 55 60
 Arg Pro Pro Thr Ala Val Leu Pro Arg Leu Val Glu Asn Leu Lys Ala
 65 70 75 80
 Arg Val Pro Val Pro Gly His Thr Glu Pro Leu Trp Ser Glu Gly Thr
 85 90 95
 Ala Pro Gly Gln Gly Leu Trp Ser His Ala Pro Ala Asp Gly Ser Leu
 100 105 110
 Met Asn Leu Ile Arg Thr Leu Val Gly Ala Val Val Phe Glu Leu Leu
 115 120 125
 Ser Met Cys Phe Gly Asp Gly Ala Gly Ala Ala Cys
 130 135 140

<210> 2981
 <211> 617
 <212> DNA
 <213> Homo sapiens

<400> 2981
 nngaattccc ctccacggac ctgaagccta aggatgctgg gaggtacttt tgtgccatca
 60
 agacaacagc ctcccatgag tggtcagaaa gcagtgaaca cttgcagctg gtgggtcacag
 120
 ataaaacgca tgaacttgaa gctccctcaa tgaaaacaga caccagaacc atctttgtcg
 180
 ccattcttcag ctgcattctcc atccttctcc tcttctcttc agtcttctac atctacagat
 240
 gcangccagc acagttctac atctgaggaa tccaccaaga gaaccagcca ttccaaactt
 300
 ccggagcagg aggctgccga ggcagattta tccaatatgg aaaggggtatc tctctcgagc
 360
 gcagaccccc aaggagtgcac ctatgctgag ctaagcacca gcgcctctgc tgaggcagct
 420
 tcagacacca cccaggagcc cccaggatct catgaatatg cggcactgaa agtgtagcaa
 480

gaagacagcc ctggccacta aaagaggggg gatcgtgctg gccaaaggta tcggaaatct
 540
 ggagatgcag atactgtggt tccttgctct tcgtccatat caataaaatt aagtttctcg
 600
 tcttaaaaaa aaaaaaa
 617

<210> 2982
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 2982
 Lys Gln Thr Pro Glu Pro Ser Leu Ser Pro Ser Ser Ala Ala Ser Pro
 1 5 10 15
 Ser Phe Ser Ser Ser Ser Gln Ser Ser Ser Thr Asp Ala Xaa Gln
 20 25 30
 His Ser Ser Ser Ser Glu Glu Ser Thr Lys Arg Thr Ser His Ser Lys
 35 40 45
 Leu Pro Glu Gln Glu Ala Ala Glu Ala Asp Leu Ser Asn Met Glu Arg
 50 55 60
 Val Ser Leu Ser Thr Ala Asp Pro Gln Gly Val Thr Tyr Ala Glu Leu
 65 70 75 80
 Ser Thr Ser Ala Leu Ser Glu Ala Ala Ser Asp Thr Thr Gln Glu Pro
 85 90 95
 Pro Gly Ser His Glu Tyr Ala Ala Leu Lys Val
 100 105

<210> 2983
 <211> 614
 <212> DNA
 <213> Homo sapiens

<400> 2983
 cggccgctca gcatgtccgg gcactttctg ctgcacacca tccccgagtc ctccctggac
 60
 taactactgc ccaaggacat caaactggcg gtgctgggag ccggccgcgt gggcaagagc
 120
 gcaatgatcg tgcgcttcct gaccaagaga ttcattggag actatgaacc gaatacaggc
 180
 aagctgtatt cacggctggt ctatgtcgag ggggaccagg ttcctcgca gatccaggat
 240
 actccggggg gcgtccagat ccaagacagc ctccccagg tcgtcgattc cctgcaaatg
 300
 cgtgcagtgg ccgaggggtt tctgctgggt tattccatca cagactatga cagctacttg
 360
 tccatccgac ccctttatca gcacatccgg aaggtccacc ctgactctaa agccccgtgc
 420
 atcatcgtgg gcaacaaggg ggacettttg catgcccgag aggtgcagac acaggacggg
 480
 attcagctag ccaatgagct gggcagcctg ttccttgaaa ttccactag cgaaaaatc
 540
 gaagatgtct gtgatgtgtt tcagcatctc tgcaaaagag tgagcaagat gcacggcctc
 600

agtggggaaa gaag
614

<210> 2984

<211> 204

<212> PRT

<213> Homo sapiens

<400> 2984

```

Arg Pro Leu Ser Met Ser Gly His Phe Leu Leu Ala Pro Ile Pro Glu
 1              5              10              15
Ser Ser Ser Asp Tyr Leu Leu Pro Lys Asp Ile Lys Leu Ala Val Leu
 20              25              30
Gly Ala Gly Arg Val Gly Lys Ser Ala Met Ile Val Arg Phe Leu Thr
 35              40              45
Lys Arg Phe Ile Gly Asp Tyr Glu Pro Asn Thr Gly Lys Leu Tyr Ser
 50              55              60
Arg Leu Val Tyr Val Glu Gly Asp Gln Leu Ser Leu Gln Ile Gln Asp
 65              70              75              80
Thr Pro Gly Gly Val Gln Ile Gln Asp Ser Leu Pro Gln Val Val Asp
 85              90              95
Ser Leu Gln Met Arg Ala Val Ala Glu Gly Phe Leu Leu Val Tyr Ser
100              105              110
Ile Thr Asp Tyr Asp Ser Tyr Leu Ser Ile Arg Pro Leu Tyr Gln His
115              120              125
Ile Arg Lys Val His Pro Asp Ser Lys Ala Pro Val Ile Ile Val Gly
130              135              140
Asn Lys Gly Asp Leu Leu His Ala Arg Gln Val Gln Thr Gln Asp Gly
145              150              155              160
Ile Gln Leu Ala Asn Glu Leu Gly Ser Leu Phe Leu Glu Ile Ser Thr
165              170              175
Ser Glu Asn Tyr Glu Asp Val Cys Asp Val Phe Gln His Leu Cys Lys
180              185              190
Glu Val Ser Lys Met His Gly Leu Ser Gly Glu Arg
195              200

```

<210> 2985

<211> 4547

<212> DNA

<213> Homo sapiens

<400> 2985

```

nggcacgcgt gggaggcggc tgcccgcgac cggagacggc agtgttggcg gtagtggtgg
60
gtggcagggg cctgtgaccg ggaactgccc ccggaccggc gcaccatgag ccaaggcccc
120
ccacacagggg agagcagcga gccccaagca aaagtctccc acactaagcg gctttaccgg
180
gctgtgtgtg aggctgtgca tcgacttgac etcatecttt gcaacaaaaa tgcttatcaa
240
gaagtattca aaccagaaaa cattagcctg aggaacaagc tgcgtgagct ctgcgtcaag
300
cttatgttcc tgcaccaggt ggactatggg agaaaaggctg aggagctgct gtggagaaa
360

```


gtatactatg aagttatcca gcttatcaag actaacaaaa agcacatcca cagccggagc
420
actttggaat gtgcctacag gacgcacctg gttgtcggta ttggcttcta ccagcatctc
480
cttctetata tccagtccca ctaccagctg gaactgcagt gctgcacga ctggaccat
540
gtcactgacc ccctcatagg atgcaagaag ccagtgtctg cctcagggaa ggagatggat
600
tggggcacaga tggcatgtca ccgatgtctg gtgtatctgg gggatttgte ccgatatac
660
aatgaattag ctggcgtaga taccgagctg ctagccgaga gattttacta ccaagccctg
720
tcagtagctc ctcagattgg aatgccctc aatcagctgg gcaccctggc aggcagcaag
780
tactataaat tgggaagccat gtattgtctac ctgcgctgca tccagtcaga agtgccttt
840
gaggggagcct atgggaacct caagcggctg tatgacaagg cagccaaaat gtaccacca
900
ctgaagaagt gtgagactcg gaaactgtct cctggcaaaa agcagtgtaa agacattaaa
960
agggtgctag tgaactttat gtatctgcaa agcctctctac agcccaaaag cagctccgtg
1020
gactcagagc tgacctcact ttgccagca gtccctggagg acttcaacct ctgcctcttc
1080
tacctgccct cctcacccaa cctcagcctg gccagtggagg atgaggagga gtatgagagt
1140
ggatatgctt tcctcccgga ccttctctc tttcaaatgg tcatcatctg ccttatgtgt
1200
gtgcacagct tggagagagc aggatccaag cagtacagtg cagccattgc cttcacctg
1260
gccctctttt cccacctcgt caatcatgtc aacatacggc tgcaggctga gctggaagag
1320
ggcgagaatc ccgtcccggc attccagagt gatggcacag atgaaccaga gtccaaggaa
1380
cctgtggaga aagaggagga gccagatcct gagcctctc ctgtaacacc ccaagtgggt
1440
gaggggagaa agagccgtaa gttctctcgc ctctcctgtc tcgcgctcg ccgccacca
1500
cccaagttg gtgatgacag tgacctgagt gaaggctttg aatcggaactc aagccatgac
1560
tcagcccggg ccagtggagg ctcagacagt ggctctgaca agagtcttga aggtggggga
1620
acggcctttg atgctgaaac agactcggaa atgaatagcc aggagtcctg atcagacttg
1680
gaagatatgg aggaagagga ggggacacgg tcaccaaccc tggagcccc tcggggcaga
1740
tcagaggctc ccgattccct caatggccca ctgggcccc gtgaggctag cattgccagc
1800
aatctacaag ccatgtccac ccagatgttc cagactaagc gctgcttctg actggcccc
1860
acctttagca acctgtcct ccagccacc accaaccctc atacctcggc cagccacagg
1920
ccttgcgtca atggggatgt agacaagcct tcagagccag cctctgagga gggctctgag
1980

tcggaggggga gtgagtcacg tggacgctcc tgtcggaaatg agcgcagcat ccaggagaag
2040
cttcagggtcc tgatggccga aggtctgctt cctgctgtga aagtcttccct ggactggctt
2100
cggaccaacc ccgacctcat catcgtgtgt gcgcagagct ctcaaagtct gtggaaccgc
2160
ctgtctgtgt tgctgaatct gttgcctgct gctgggtgaac tccaggagtc tggcctggcc
2220
ttgtgtctctg aggtccaaga tcttcttgaa ggttgtgaac tgcctgacct cccctctagc
2280
cttctgctcc cagaggacat ggctcttctg aacctgcccc cgctccgagc tggccacaga
2340
cgctttaact ttgacacgga tcggccccctg ctcagcacct tagaggagtc agtgggtgcg
2400
atctgctgca tccgcagctt tggctatttc atcgcccccc tgcaaggcag catcctgcag
2460
ttcaaccacag aggttggcat cttcgtcagc attgcccagt ctgagcagga gagcctgctg
2520
cagcaggccc aggcacagtt ccgaatggca caggagggaag ctcgctcgga caggctcatg
2580
agagacatgg ctcagctacg acttcagctc gaagtgtctc agctggaggg cagcctgcag
2640
cagcccaagg cccagtcagc catgtctccc tacctctgcc ctgacaccca ggccctctgc
2700
caccatctcc ctgtcatccg ccaactggcc accagtggcc gcttcattgt catcatccca
2760
aggacagtga tcgattggcct ggatttgctg aagaaggaac acccaggggc ccgggatggg
2820
attcgggtacc tggaggcaga gtttaaaaaa ggaacacaggt acattcgtcgc ccagaaagag
2880
gtgggaaaga gctttgagcg gcataagctg aagaggcagc atgcagatgc ctggactctc
2940
tataagatcc tagacagctg caaacagctg actctggccc agggggcagg tgaggaggat
3000
ccgagtggca ttggtgacct catcacaggc ctccactgg acaaccccag cgtgtcttca
3060
ggccccatgc aggcagccct gcaggccgct gccacgccca gtgtggacat caagaatgtt
3120
ctggacttct acaagcagtg gaaggaaatt ggttgatact gacccccagg cctgcagtg
3180
gggctgactc cagatctctc ctgccctccc tggcagccag gaccagacc tgtatgcacc
3240
ccaccacacg cagactcatg cagcacaca ggaggaggc ctactgtctc agaggctgca
3300
gggaggggccc agggagccgc tgggagggtg gggccccctt gttgccaaga cgttaggaaa
3360
gcgaggaaaag tgcttggatt aggagagtct tgtggggccc tggccagcct tctgcctca
3420
gtccccctgc tgtctccagg ggcagggtgt aggcattgggt acctgcattt cactggaatg
3480
ggttcttgta tctctgaggg gaaggaacag caaaagaggc ccttcttccct caccacaagat
3540
gcagggtgtg tggggccagg agtttggacc ctctaggctc tggggggaaga gctgggtaat
3600

acctggtgtc tgagtgtatc tctgcagacc ctccccctcc tcaaggatca cccatcctcc
 3660
 ttccagcccc ctttatgggg accaggcagc tctggagcca gccacagggg ctgttagaga
 3720
 agcaaggcct ggagtggcct gcaccagta gcagggtcag gggtcgtgtg ctccctctcc
 3780
 tgetgcaggg gctgcacatc ccattgcccc acttctgctt tegtgtctccc tctgtctagc
 3840
 ttccagggca gggagcaggc cccacctagg gctgcaggca gtctggcctg tgccagcacg
 3900
 gtctcctgtg cccaccagcc ccacagggtg tgtgctttgt gctcttggtg gctgtgctgg
 3960
 gacagaatgg gatgccagga agagaagaaa gggggtgcag tctgaggcca ccacccccct
 4020
 tcctatctaa gggagggctg aagacaaggg gccggcattc agtgggcagc agaaaggaga
 4080
 ggctccttga agctgctcag tcagaggccc ccgtccctcc ttttgccttc cgcaggactg
 4140
 aagacctgaa ggggctggct tttggagtgt tgagggtgaat atctgggagc agagatcatg
 4200
 aatagctcag ggcagtgaat ggcgcaccaa gagcagggtg gtgtgtggga ggcctgcagc
 4260
 aggattgcct cagctcctcc ccctcaggct gggaggatag cacaggctag gggctcgggg
 4320
 tggaggggtct cagctctgct gccccccccc cagtactagc ctagtctccc aagctgtggc
 4380
 tttagggata gttggcttcc tgcctctctc ctctaaaata gcaagtctgg gaaatcctgg
 4440
 ggtgagtggg gtcacccccc tcccagttgc tggcagagac tgagactaaa gcactcatct
 4500
 ataaaccccc caagcccaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa
 4547

<210> 2986

<211> 988

<212> PRT

<213> Homo sapiens

<400> 2986

Glu Ala Val His Arg Leu Asp Leu Ile Leu Cys Asn Lys Thr Ala Tyr
 1 5 10 15
 Gln Glu Val Phe Lys Pro Glu Asn Ile Ser Leu Arg Asn Lys Leu Arg
 20 25 30
 Glu Leu Cys Val Lys Leu Met Phe Leu His Pro Val Asp Tyr Gly Arg
 35 40 45
 Lys Ala Glu Glu Leu Leu Trp Arg Lys Val Tyr Tyr Glu Val Ile Gln
 50 55 60
 Leu Ile Lys Thr Asn Lys Lys His Ile His Ser Arg Ser Thr Leu Glu
 65 70 75 80
 Cys Ala Tyr Arg Thr His Leu Val Ala Gly Ile Gly Phe Tyr Gln His
 85 90 95
 Leu Leu Leu Tyr Ile Gln Ser His Tyr Gln Leu Glu Leu Gln Cys Cys
 100 105 110
 Ile Asp Trp Thr His Val Thr Asp Pro Leu Ile Gly Cys Lys Lys Pro

```

      115      120      125
Val Ser Ala Ser Gly Lys Glu Met Asp Trp Ala Gln Met Ala Cys His
  130      135      140
Arg Cys Leu Val Tyr Leu Gly Asp Leu Ser Arg Tyr Gln Asn Glu Leu
  145      150      155      160
Ala Gly Val Asp Thr Glu Leu Leu Ala Glu Arg Phe Tyr Tyr Gln Ala
  165      170      175
Leu Ser Val Ala Pro Gln Ile Gly Met Pro Phe Asn Gln Leu Gly Thr
  180      185      190
Leu Ala Gly Ser Lys Tyr Tyr Asn Val Glu Ala Met Tyr Cys Tyr Leu
  195      200      205
Arg Cys Ile Gln Ser Glu Val Ser Phe Glu Gly Ala Tyr Gly Asn Leu
  210      215      220
Lys Arg Leu Tyr Asp Lys Ala Ala Lys Met Tyr His Gln Leu Lys Lys
  225      230      235      240
Cys Glu Thr Arg Lys Leu Ser Pro Gly Lys Lys Arg Cys Lys Asp Ile
  245      250      255
Lys Arg Leu Leu Val Asn Phe Met Tyr Leu Gln Ser Leu Leu Gln Pro
  260      265      270
Lys Ser Ser Ser Val Asp Ser Glu Leu Thr Ser Leu Cys Gln Ser Val
  275      280      285
Leu Glu Asp Phe Asn Leu Cys Leu Phe Tyr Leu Pro Ser Ser Pro Asn
  290      295      300
Leu Ser Leu Ala Ser Glu Asp Glu Glu Glu Tyr Glu Ser Gly Tyr Ala
  305      310      315      320
Phe Leu Pro Asp Leu Leu Ile Phe Gln Met Val Ile Ile Cys Leu Met
  325      330      335
Cys Val His Ser Leu Glu Arg Ala Gly Ser Lys Gln Tyr Ser Ala Ala
  340      345      350
Ile Ala Phe Thr Leu Ala Leu Phe Ser His Leu Val Asn His Val Asn
  355      360      365
Ile Arg Leu Gln Ala Glu Leu Glu Glu Gly Glu Asn Pro Val Pro Ala
  370      375      380
Phe Gln Ser Asp Gly Thr Asp Glu Pro Glu Ser Lys Glu Pro Val Glu
  385      390      395      400
Lys Glu Glu Glu Pro Asp Pro Glu Pro Pro Val Thr Pro Gln Val
  405      410      415
Gly Glu Gly Arg Lys Ser Arg Lys Phe Ser Arg Leu Ser Cys Leu Arg
  420      425      430
Arg Arg Arg His Pro Pro Lys Val Gly Asp Asp Ser Asp Leu Ser Glu
  435      440      445
Gly Phe Glu Ser Asp Ser Ser His Asp Ser Ala Arg Ala Ser Glu Gly
  450      455      460
Ser Asp Ser Gly Ser Asp Lys Ser Leu Glu Gly Gly Thr Ala Phe
  465      470      475      480
Asp Ala Glu Thr Asp Ser Glu Met Asn Ser Gln Glu Ser Arg Ser Asp
  485      490      495
Leu Glu Asp Met Glu Glu Glu Glu Gly Thr Arg Ser Pro Thr Leu Glu
  500      505      510
Pro Pro Arg Gly Arg Ser Glu Ala Pro Asp Ser Leu Asn Gly Pro Leu
  515      520      525
Gly Pro Ser Glu Ala Ser Ile Ala Ser Asn Leu Gln Ala Met Ser Thr
  530      535      540
Gln Met Phe Gln Thr Lys Arg Cys Phe Arg Leu Ala Pro Thr Phe Ser

```

```

545          550          555          560
Asn Leu Leu Leu Gln Pro Thr Thr Asn Pro His Thr Ser Ala Ser His
565          570
Arg Pro Cys Val Asn Gly Asp Val Asp Lys Pro Ser Glu Pro Ala Ser
580          585          590
Glu Glu Gly Ser Glu Ser Glu Gly Ser Glu Ser Ser Gly Arg Ser Cys
595          600          605
Arg Asn Glu Arg Ser Ile Gln Glu Lys Leu Gln Val Leu Met Ala Glu
610          615          620
Gly Leu Leu Pro Ala Val Lys Val Phe Leu Asp Trp Leu Arg Thr Asn
625          630          635          640
Pro Asp Leu Ile Ile Val Cys Ala Gln Ser Ser Gln Ser Leu Trp Asn
645          650          655
Arg Leu Ser Val Leu Leu Asn Leu Leu Pro Ala Ala Gly Glu Leu Gln
660          665          670
Glu Ser Gly Leu Ala Leu Cys Pro Glu Val Gln Asp Leu Leu Glu Gly
675          680          685
Cys Glu Leu Pro Asp Leu Pro Ser Ser Leu Leu Leu Pro Glu Asp Met
690          695          700
Ala Leu Arg Asn Leu Pro Pro Leu Arg Ala Ala His Arg Arg Phe Asn
705          710          715          720
Phe Asp Thr Asp Arg Pro Leu Leu Ser Thr Leu Glu Glu Ser Val Val
725          730          735
Arg Ile Cys Cys Ile Arg Ser Phe Gly His Phe Ile Ala Arg Leu Gln
740          745          750
Gly Ser Ile Leu Gln Phe Asn Pro Glu Val Gly Ile Phe Val Ser Ile
755          760          765
Ala Gln Ser Glu Gln Glu Ser Leu Leu Gln Gln Ala Gln Ala Gln Phe
770          775          780
Arg Met Ala Gln Glu Glu Ala Arg Arg Asn Arg Leu Met Arg Asp Met
785          790          795          800
Ala Gln Leu Arg Leu Gln Leu Glu Val Ser Gln Leu Glu Gly Ser Leu
805          810          815
Gln Gln Pro Lys Ala Gln Ser Ala Met Ser Pro Tyr Leu Val Pro Asp
820          825          830
Thr Gln Ala Leu Cys His His Leu Pro Val Ile Arg Gln Leu Ala Thr
835          840          845
Ser Gly Arg Phe Ile Val Ile Ile Pro Arg Thr Val Ile Asp Gly Leu
850          855          860
Asp Leu Leu Lys Lys Glu His Pro Gly Ala Arg Asp Gly Ile Arg Tyr
865          870          875          880
Leu Glu Ala Glu Phe Lys Lys Gly Asn Arg Tyr Ile Arg Cys Gln Lys
885          890          895
Glu Val Gly Lys Ser Phe Glu Arg His Lys Leu Lys Arg Gln Asp Ala
900          905          910
Asp Ala Trp Thr Leu Tyr Lys Ile Leu Asp Ser Cys Lys Gln Leu Thr
915          920          925
Leu Ala Gln Gly Ala Gly Glu Glu Asp Pro Ser Gly Met Val Thr Ile
930          935          940
Ile Thr Gly Leu Pro Leu Asp Asn Pro Ser Val Leu Ser Gly Pro Met
945          950          955          960
Gln Ala Ala Leu Gln Ala Ala Ala His Ala Ser Val Asp Ile Lys Asn
965          970          975
Val Leu Asp Phe Tyr Lys Gln Trp Lys Glu Ile Gly

```

980

985

<210> 2987

<211> 1016

<212> DNA

<213> Homo sapiens

<400> 2987

ngtcgacaag gtgggaaggt aaccgatgga tgggggggga aggttggtgt gctcacggcc
 60
 acatcaataa ggctcaatac attccttggg gacaggaaga agaaattcaa ctagtcttct
 120
 gaaaggcggt cctgaaattc acaggggaga gcggatatto caggaggcag tctaagttat
 180
 ctgaggcggt caactcacc agtgagacca agttactgta gttctccagc atcacgtccc
 240
 agtacaggtc cctctgagcg tcatccaggt cctgccactc ctcccagggt aagtgcacag
 300
 ctacctctc aaaggacacc aactcctgta atgataccag gctgtttag gtctccagca
 360
 tcacgttctc gtacagggtc ctctaagcat cateccagtc ctgccactct tcccagggtga
 420
 agtgccacagc cacatcttca aaggacacca accccagaga ttattctctt tctgttagct
 480
 gggcccggtt ggggcttgggt tctatgtccc tgcgggtcgg tgcgaggcgg aagaggaacc
 540
 cgtggggccc ggggatcccc gggggccgga ccagtggtcc ccagttgtgg gaggacagc
 600
 gtgggcgcat caggggcggg cagggctgaa gtgcagctat gtttccagtg tctctgggt
 660
 gtttccaaga gcaacaggaa acgaataaat ctctgatgga gtctcactct gtcaccagg
 720
 ctggagtgca gtggcacgat ctccgctcac tgcaagctcc acctcccagg ttcacacat
 780
 cctcctgctc cagcctcccc agttgcaggg actacaggca ccgccacaa tgcccggcta
 840
 ttttttgtgt ttttagtaga gatggggttt cactatgtta gccaggatgg tcttgatctc
 900
 ctgacctcat tactcgccng actccggctc ccaaagtgt ggaattacna gogtgagaca
 960
 ccgcgcctgg tctccatcaa atgacttttt aaataaaaata cggttctcac ctaaca
 1016

<210> 2988

<211> 95

<212> PRT

<213> Homo sapiens

<400> 2988

Trp Ser Leu Thr Leu Ser Pro Arg Leu Glu Cys Ser Gly Thr Ile Ser
 1 5 10 15
 Ala His Cys Lys Leu His Leu Pro Gly Ser His His Pro Pro Ala Ser
 20 25 30
 Ala Ser Arg Val Ala Gly Thr Thr Gly Thr Arg His Asn Ala Arg Leu

	35		40		45														
Phe	Phe	Val	Phe	Leu	Val	Glu	Met	Gly	Phe	His	Tyr	Val	Ser	Gln	Asp				
	50					55					60								
Gly	Leu	Asp	Leu	Leu	Thr	Ser	Leu	Leu	Ala	Xaa	Leu	Arg	Leu	Pro	Lys				
65					70				75					80					
Cys	Trp	Asn	Tyr	Xaa	Arg	Glu	Thr	Pro	Arg	Leu	Val	Ser	Ile	Lys					
			85					90					95						

<210> 2989

<211> 1185

<212> DNA

<213> Homo sapiens

<400> 2989

```

nnagtgcggc acccagaggc ggtcctgtag ctggggcggc ttggggcttg gtcctgcggg
60
tcgggtcgag ggcgaaagg aacccgtggg cccgggggat cccggggggc cggaccagtg
120
ttcccagtt gtgggagcag acgcgtgggc gcctgcgggc cgggcagggc ctgaagtgcg
180
gctatgtttc cagtgttttc tggctgtttc caagagctac aagaaaagaa taaattcttg
240
gagttgtgtt cctttgagga ggtagctgtg cacttcacct gggaggagtg gcaggacctg
300
gatgacgctc agaggaccct gtacagggac gtgatgtcgg agacctacag cagcctgtga
360
tcattggggc attgcattac caaacctgag atgatcttca agctagagca aggagcagag
420
ccatggatag tagaagaaac cctaaacctg agactttcag gtggaagcaa gaagcaagtt
480
ttctcaggta tttgccacag gagcctgggt gagctccagg aggtttgtat tctctgttga
540
actctggaac tgtattccca attgtcaatt ggacatccct acgtatggga cctcagatat
600
ttcaaacatg atgtgtccaa gtctgtatca cttctggcca tcatattgtt cttttatttt
660
tccaaatttc acataccagg taacaaacta gctgtgatca tggcagatag cctggaaata
720
aaactccctt ttttaccctt tgcacagcaa attgacatca aatcctgttt ctactttttt
780
ttttttaact attgtctccc tattctgtat tctcactgct ccatctctcg atgtaggagg
840
tcactgtgtt tctcttttct ctctcctctg actcttaage cctttcccat tctcttttct
900
aggaatggct gttaaaatgc caatatggct ttgtactttt cctgtactta gtgaacctcc
960
ttatttcac cctgtttgtg aagtggctgt gttcaccctg ggtggacacg gaatgttttt
1020
ggcatgtaca aagagaattt tatgctgcct gtgtacagtt attaatttgt aagtacactc
1080
agctttttgt atctgtagggt ttaatatctg tgtatgtaag caaacttgga tgcaaaatat
1140
ttgaaataaa atcagatgct tgcattctgta gtgaacataa aaaaa
1185

```

<210> 2990

<211> 114

<212> PRT

<213> Homo sapiens

<400> 2990

```

Met Phe Pro Val Phe Ser Gly Cys Phe Gln Glu Leu Gln Glu Lys Asn
  1             5             10             15
Lys Ser Leu Glu Leu Val Ser Phe Glu Glu Val Ala Val His Phe Thr
      20             25             30
Trp Glu Glu Trp Gln Asp Leu Asp Asp Ala Gln Arg Thr Leu Tyr Arg
      35             40             45
Asp Val Met Leu Glu Thr Tyr Ser Ser Leu Val Ser Leu Gly His Cys
      50             55             60
Ile Thr Lys Pro Glu Met Ile Phe Lys Leu Glu Gln Gly Ala Glu Pro
      65             70             75             80
Trp Ile Val Glu Glu Thr Leu Asn Leu Arg Leu Ser Gly Gly Ser Lys
      85             90             95
Lys Gln Val Phe Ser Gly Ile Cys His Arg Ser Leu Val Glu Leu Gln
      100            105            110
Glu Val

```

<210> 2991

<211> 980

<212> DNA

<213> Homo sapiens

<400> 2991

```

ntttatttgt caatgtgcaa tatttttaca cttctgaatt tctctgtaca atgtcttaga
60
atctagaata taaagggtgc tggctcctgat cccttgcaga gtgagtgcag cagtgacagc
120
ttgggtgggct ccagctgacc cctccagagc ccctgagtgg tggcggtctg cagtcctcag
180
tcagcagcag cagacgtcac ccgtcatata gggccattca ctgaagtgtc acctgggtgcg
240
cttgggtggc cagtcctctg ctccgggact ctgctgggag gcctggggcg cgcgcacttc
300
gcctctgcag tctcgggaca ctctctgcg tctttacaag cagcatcttg agaggtagac
360
agtttccctt cctcactttt gaagaccgca gtctctgtct tggcatctac agtgaggctg
420
agcgtttcc tcatgccgcc attcatcact gtctcagtta ctttgtctgt actttctgca
480
tcctctctc cgtcagagct ggcttccatg gccacactgc ctgccgcttc tggctgcact
540
gccagggcag ccgactggg agtcagaggg tccatgggtt cagtgctggt ttccatttcc
600
actggagaat tactccttaa agaattcttt gtgctttctc aggggaagagt gaactctgaa
660
aaagaagccc agcccgcttc tttagttggc atcggctcct ctgtgtctca gacatcagat
720

```


cccacagaat ccaatggagc accgtgggtt gttccattg ggacatcaaa gttagctgac
 780
 cagttgggtg gttcactcag gtccacctcc attttatcct ccgtgttggc actgctgggt
 840
 tcaacaagat cttgctttgc tccatcttct tcttcagagt ctgtactttc ctactgtct
 900
 gtaactcccc agctggatcg tctttgggat tctggtgtga atgcgatgtg cttttctccc
 960
 catatatctt cctcatcaga
 980

<210> 2992

<211> 64

<212> PRT

<213> Homo sapiens

<400> 2992

Val	Val	Ala	Val	Cys	Ser	Pro	Gln	Ser	Ala	Ala	Ala	Asp	Val	Thr	Arg
1				5				10					15		
His	Thr	Gly	Pro	Phe	Thr	Glu	Val	Ser	Pro	Gly	Ala	Leu	Gly	Trp	Pro
			20					25				30			
Val	Leu	Cys	Ser	Gly	Leu	Leu	Leu	Gly	Gly	Ala	Ala	His	Phe		
		35					40			45					
Ala	Ser	Ala	Val	Ser	Gly	His	Ser	Ser	Ala	Ser	Leu	Gln	Ala	Ala	Ser
	50					55					60				

<210> 2993

<211> 687

<212> DNA

<213> Homo sapiens

<400> 2993

nnatgccccg ggtccaggga gccgctgatg gtccactgaag ctgtggccct agagcggcgg
 60
 cgggagcagg aagaaaaggga ggacatggag acccaggctg tggcaacgtc ccccgatggc
 120
 cgatacctca agtttgacat cgagattgga cgtggctcct tcaagacggt gtatcgaggg
 180
 ctgagaccgc acaccacagt ggaggtggcc tgggtgtgagc tgcagactcg gaaactgtct
 240
 agagctgagc ggcagcgctt ctcagaggag gtggagatgc tcaaggggct gcagcacccc
 300
 aacatcgctc gcttctatga ttcgtggaag tccgtgctga ggggccaggt ttgcatcggt
 360
 ctggtcaccg aactcatgac ctccggcacg ctcaagacgt acctgaggcg gtcccgagg
 420
 atgaagcccg gggtccttca gcgctggagc cgccaaatcc tgcggggact tcatttccta
 480
 cactccccgg ttccctccat cctgcaccgg gatctcaagt gcgacaatgt ctttatcagc
 540
 ggacactact gctctgtcaa aatcggggac ctgggcctgg ccacgctcaa gcgcgcctcc
 600
 tttgccaaga gtgtcatcgg gaccccgga ttcattggccc ccgagatgta cgaggaaaag
 660

tacgatgagg ccgtggacgt gtacgcg
687

<210> 2994

<211> 229

<212> PRT

<213> Homo sapiens

<400> 2994

```

Xaa Cys Pro Arg Ser Arg Glu Pro Leu Met Val Thr Glu Ala Val Ala
 1           5           10           15
Leu Glu Arg Arg Glu Gln Glu Lys Glu Asp Met Glu Thr Gln
 20           25           30
Ala Val Ala Thr Ser Pro Asp Gly Arg Tyr Leu Lys Phe Asp Ile Glu
 35           40           45
Ile Gly Arg Gly Ser Phe Lys Thr Val Tyr Arg Gly Leu Asp Thr Asp
 50           55           60
Thr Thr Val Glu Val Ala Trp Cys Glu Leu Gln Thr Arg Lys Leu Ser
 65           70           75           80
Arg Ala Glu Arg Gln Arg Phe Ser Glu Glu Val Glu Met Leu Lys Gly
 85           90           95
Leu Gln His Pro Asn Ile Val Arg Phe Tyr Asp Ser Trp Lys Ser Val
100           105           110
Leu Arg Gly Gln Val Cys Ile Val Leu Val Thr Glu Leu Met Thr Ser
115           120           125
Gly Thr Leu Lys Thr Tyr Leu Arg Arg Phe Arg Glu Met Lys Pro Arg
130           135           140
Val Leu Gln Arg Trp Ser Arg Gln Ile Leu Arg Gly Leu His Phe Leu
145           150           155           160
His Ser Arg Val Pro Pro Ile Leu His Arg Asp Leu Lys Cys Asp Asn
165           170           175
Val Phe Ile Thr Gly Pro Thr Gly Ser Val Lys Ile Gly Asp Leu Gly
180           185           190
Leu Ala Thr Leu Lys Arg Ala Ser Phe Ala Lys Ser Val Ile Gly Thr
195           200           205
Pro Glu Phe Met Ala Pro Glu Met Tyr Glu Glu Lys Tyr Asp Glu Ala
210           215           220
Val Asp Val Tyr Ala
225

```

<210> 2995

<211> 1879

<212> DNA

<213> Homo sapiens

<400> 2995

```

nttttagtagt agtattacat tgtgaatttt attttcaaat ttgatcaata aagatgaaaa
 60
taataaaaatt aagcagtc aaagaagtagc aaaaacaaga tagtcattca tatatacaga
120
acatatagat tcatttcttag ttgattcaat cctatttatg tatttataaat acaaaataat
180
ggccatctgg ctagttccaa cggtagagca tgagactctt aaaatacaaa atacatctta
240

```

atgtgtcaag aagaccacag ttagcaccag gaaaggaact ttacttttagc ttctgattac
300
tttttttatt ttatttttac ttattattta ttattattat ttttgagatg gagtctcact
360
ctgntcacc aggtctggaat acagtgggtg gatctcagct cactgcaccc tccacctccc
420
aggttcaagc gattctcctg cctcagcctc ctgagtagct gggactctga tagatgcctg
480
ccaccacacc cgggtgatatt ttgtattttt agtagagacg gggtttcgcc atgttgctca
540
ggctggctc gaactccga cctcaagtga ctgctcacc ttggcctccc aaagtctgg
600
gattacaggt gtgagccact gcaccacgac tggcagtcac ttttaagcct cctattttcc
660
agggttttagc ttaataatcc tcattagttt ttcagatttt tgtcagctct gttttggggc
720
tattttgcct tagtgggcct aaacagaata ttaaaataca ttaataatcc atactgagag
780
tagagtataa atgggtttct cactccttag ggacacgagt ggaaacaata catcccatga
840
acacaggtga atgtccctgg ttatccctga gctgggcagt ttcacacaat cattttttct
900
ctgaggccaa agtctgtggt ttgatcatct tagcagcttc cagaacagaa agtaggttta
960
ctttgtctcc aaattctttt tctcggtgct caagaagaat gccctgcttt cctgatccca
1020
ccacgaaaac tcccccaagg atgaagcctt ctctctccag gtttccagag aagcctccgt
1080
tccaggctcg gaagaagttg taccacactc ccagacggat aaatcccata aacatcatct
1140
tccgcctttg tggaccatag aactttttct tttcatccag gaagatttct cctttgaaat
1200
aaggctggaa atccttcaact tcagtcctga tgtgctcctt taacctgca tagaggggga
1260
cgcccagctg gtccaacatg cttttcaggg aggacagatc cgcagcttcc tctcgacaga
1320
ggaacacgac tggcctccgc acggccataa tcacagctcc atttttttcc catagctcct
1380
tgtcttgtaa agtccttggc tccttctcca gtgttttcag gtctatatcc tccaggctact
1440
ccagggccgc tttctggggc ttggacagaa acacgtctgt gttggcaagc agcaatgccca
1500
aggcagcagc ccccgaggct cctgcaccaa tggaccacat ccccatgggt aagaacttg
1560
ggtcctggag gaaagacatt tctcaagtgc ctcccttctg ccggcctttt accgccccga
1620
gcgccgggag ctaaggggac aaaccggccc gcccgagggt tcccagggg gggccccgga
1680
gtacctggag gatatagacc tgaaaacact ggagaaggaa ccaaggactt tcaaaagcaa
1740
ggagctatgg gaaaaaatg gagctgtgat tatggccgtg cggaggccag gctgtttcct
1800
ctgtcgagag gaagctgcgg atctgtcctc cctgaaaagc atgttgagac agctggggct
1860

ccccctctat gcagtggta
1879

<210> 2996
<211> 101
<212> PRT
<213> Homo sapiens

<400> 2996
His Gln Glu Arg Asn Phe Thr Leu Ala Ser Asp Tyr Phe Phe Ile Phe
1 5 10 15
Ile Phe Thr Leu Leu Leu Leu Leu Phe Leu Arg Trp Ser Leu Thr
20 25 30
Leu Xaa Thr Gln Ala Gly Ile Gln Trp Cys Asp Leu Ser Ser Leu Gln
35 40 45
Pro Pro Pro Pro Arg Phe Lys Arg Phe Ser Cys Leu Ser Leu Leu Ser
50 55 60
Ser Trp Asp Ser Asp Arg Cys Leu Pro Pro His Pro Gly Asp Phe Cys
65 70 75 80
Ile Phe Ser Arg Asp Gly Val Ser Pro Cys Cys Ser Gly Trp Ser Arg
85 90 95
Thr Pro Asp Leu Lys
100

<210> 2997
<211> 800
<212> DNA
<213> Homo sapiens

<400> 2997
actcagatgg gcaccatcag tgctagacaa gaattctatt cctcttatcc aggcctccca
60
gagccatcca aagtgcacatc tccagtgggc acctcttcca ccataaaaga cattgtttct
120
acaaccatcac ctgcttcctc tgagataaca agaattgaga tggagtcaac atccaccctg
180
acccccacac caagggagac cagcacctcc caggagatcc actcagccac aaagccaagc
240
actgttcctt acaaggcact cactagtgcc acgattgagg actccatgac acaagtcagt
300
tcctctagca gaggacctag ccctgatcag tccacaatgt cacaagacat atccactgaa
360
gtgatcacca ggtctctctac ctcccccatc aagacagaat ctacagaaat gaccattacc
420
accaaaacag ggtctcctgg ggtacatca aggggtaccc ttaccttga cacttcaaca
480
acttttatgt cagggaccca ctcaactgca tctcaaagat ttccacatc acagatgacc
540
gtctttatga gtagaactcc tggagagtgt ccatggctaa cccatccctc tgggggaagag
600
ccgcctctg cctctttctc actggttca cctgtcttga cctcattttt ttctttttt
660
gccccctccc aaaaacctcc accttttttg gttcctgggc aaactttttc cctagggctg
720

acccccttgc cactttggcc cctccaggc tttgggcaact gacaagcatg ggaaggaggc
 120
 tgaggggtgc actgaggaca gccagtgct ggctgcagg cacccttaa catgaacagc
 180
 ctggtcacca tgaacagcag caggaggcag acaggctcct gggtggaaag aagctgggtcc
 240
 acagtgaaga cccacctcca agccaggga agcctgaagc ctgggggatg ggtcgccagt
 300
 ccagaaacc gcaagggcaa ctgtggtgc tttccctgg gccaccat gccgcccat
 360
 ggacgaattg gcatgcactt tctccctct gagggccata aaagccctg ggctcgacca
 420
 gagctgagcg gatatcagga cgacaagctg cacagaggta ctaccatac caaggcctcc
 480
 tctctgctga gagctgcaca tacaatggaa tgacctgcct gtagagagag ctteccactc
 540
 cagggtctcc
 550

<210> 3000

<211> 167

<212> PRT

<213> Homo sapiens

<400> 3000

Met	Cys	Ser	Ser	Gln	Gln	Arg	Gly	Gly	Leu	Gly	Met	Gly	Ser	Thr	Ser
1				5					10					15	
Val	Gln	Leu	Val	Val	Leu	Ile	Ser	Ala	Gln	Leu	Trp	Leu	Ser	Pro	Gly
			20						25				30		
Ala	Phe	Met	Gly	Leu	Arg	Gly	Glu	Lys	Val	His	Ala	Asn	Ser	Ser	Met
		35				40						45			
Gly	Gly	His	Gly	Trp	Ala	Gln	Gly	Lys	Ala	Pro	Gln	Val	Ala	Leu	Ala
	50					55					60				
Val	Ser	Gly	Thr	Gly	Asp	Pro	Ser	Pro	Arg	Leu	Gln	Ala	Phe	Pro	Gly
65					70				75					80	
Leu	Glu	Val	Gly	Leu	His	Cys	Gly	Pro	Ala	Ser	Phe	His	Pro	Gly	Ala
			85						90				95		
Cys	Leu	Pro	Pro	Ala	Ala	Val	His	Gly	Asp	Gln	Ala	Val	His	Val	Lys
		100						105					110		
Gly	Cys	Leu	Gln	Ala	Ser	Thr	Gly	Leu	Ser	Ser	Val	His	Pro	Ser	Ala
		115					120					125			
Ser	Phe	Pro	Cys	Leu	Ser	Val	Pro	Lys	Ala	Trp	Arg	Gly	Pro	Lys	Trp
		130				135					140				
Gln	Gly	Gly	Trp	His	Val	Ser	Thr	Thr	Pro	Ser	Met	Cys	Thr	Leu	Ser
145					150					155				160	
Trp	Ala	Val	Thr	Ala	Pro	Gly									
				165											

<210> 3001

<211> 1092

<212> DNA

<213> Homo sapiens

<400> 3001

agatctttgt gaggcctgaa tgaatggcc ccattcagaa ttccccagga tgtcatccat
 60
 aatagctctg cctggctgag ttgaaagggt cactgttctg ttccagcgtt gagatgcctt
 120
 gaagtacaga ggttgagccc ctatgtatgc ctgggggagt cccagaaagt ggaatcccaa
 180
 ccttgctcag ctccaccagt tttcttctat aaccacagaa ttgcaaaagc agcagtagcc
 240
 actgagggcat ccagcccagc tcaggccctg ccaccnncac gtaccaaagc atcattgtca
 300
 ggcaagggat acagaacaca gtgctctcac cagactgcag cttgggggac acccagcacg
 360
 gagagaagct gaggcggaac tgcactatct accggccctg gttctcccc tacagctact
 420
 tcgtgtgtgc agacaaagag agccagctgg aggcctatga ctcccagag gtgcagcagg
 480
 atgagggcaa gtgggacaac tgcctttctg aggacatggc tgagaacatc tgttcgtctt
 540
 ctctctccc agagaacact tgcctctcag aagccaccaa gaaatccagg catggcctgg
 600
 actccatcac atcccaggac atcctaattg ctccagggtg gcaccagca cagcagaatg
 660
 gctacaagtg cgtggcctgc tgcgcctatg accccaccct ggacttcttc aagagccaca
 720
 tcaagagggg cttcaggagg ggcttcagct gcaagggtga ctaccgcaag ctcaagcccc
 780
 tctggagcaa ggagcagaag gcccggtctg gagacaggct ctctccggc agctgccagg
 840
 ccttcaatag tctctgtgaa caccttaggc aaattggcgg tgaagcctac ttatgtctct
 900
 agagagatgc caataaagtt agtcacagcc ttctgtccag tctgagggtca ccccgacag
 960
 cctgctgtcc tccccagaac ccggctctca tcaccttggc ctaatggttg cctagcaaca
 1020
 ccaggcacac accctccctt ttctctcttt taaaaataaa gacaataatt gaagtttggg
 1080
 aaaatcaaaa aa
 1092

<210> 3002

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3002

Met Ala Pro Phe Arg Ile Pro Gln Asp Val Ile His Asn Ser Ser Ala
 1 5 10 15
 Trp Leu Ser Leu Lys Gly His Cys Ser Val Ser Ala Leu Arg Cys Leu
 20 25 30
 Glu Val Gln Arg Leu Ser Pro Tyr Val Cys Leu Gly Glu Ser Gln Lys
 35 40 45
 Val Glu Ser Gln Pro Cys Ser Ala His Gln Cys Phe Phe Tyr Asn Pro
 50 55 60
 Asp Ile Ala Lys Thr Ala Val Pro Thr Glu Ala Ser Ser Pro Ala Gln

```

65              70              75              80
Ala Leu Pro Pro Xaa Ser Thr Lys Ala Ser Leu Ser Gly Lys Gly Tyr
      85              90              95
Arg Thr Gln Cys Ser His Gln Thr Ala Ala Trp Gly Thr Pro Ser Thr
      100              105              110
Glu Arg Ser
      115

```

```

<210> 3003
<211> 474
<212> DNA
<213> Homo sapiens

```

```

<400> 3003
gcgcgccatg gagccccggg cggttgcaga agccgtggag acgggtgagg aggatgtgat
60
tatggaagct ctgcggtcat acaaccagga gactcccgag agcttcacgt ttgatgatgc
120
ccaacaggag gaccggaaga gactggcgga gctgctggtc tccgtccttg aacagggctt
180
gccaccctcc caccgtgtca tctggctgca gactgtccga atcctgtccc gggaccgcaa
240
ctgcctggag ccgttcacca gccgccagag cctgcaggca ctacgtctgt atgctgacat
300
ctctgtctct gaggggtccg tcccagagtc cgcagacatg gatgttgatc tggagtccct
360
caagtgcctg tgcaacctcg tgctcagcag cctgtgtgga cagatgctgg cagcagaggc
420
ccgcctagtg gtgaagctca cagagcgtgt ggggctgtac cgtgagagga gctc
474

```

```

<210> 3004
<211> 155
<212> PRT
<213> Homo sapiens

```

```

<400> 3004
Met Glu Pro Arg Ala Val Ala Glu Ala Val Glu Thr Gly Glu Glu Asp
1      5      10      15
Val Ile Met Glu Ala Leu Arg Ser Tyr Asn Gln Glu His Ser Gln Ser
20      25      30
Phe Thr Phe Asp Asp Ala Gln Gln Glu Asp Arg Lys Arg Leu Ala Glu
35      40      45
Leu Leu Val Ser Val Leu Glu Gln Gly Leu Pro Ser His Arg Val
50      55      60
Ile Trp Leu Gln Ser Val Arg Ile Leu Ser Arg Asp Arg Asn Cys Leu
65      70      75      80
Asp Pro Phe Thr Ser Arg Gln Ser Leu Gln Ala Leu Ala Cys Tyr Ala
85      90      95
Asp Ile Ser Val Ser Glu Gly Ser Val Pro Glu Ser Ala Asp Met Asp
100      105      110
Val Val Leu Glu Ser Leu Lys Cys Leu Cys Asn Leu Val Leu Ser Ser
115      120      125
Pro Val Ala Gln Met Leu Ala Ala Glu Ala Arg Leu Val Val Lys Leu

```


130 135 140
 Thr Glu Arg Val Gly Leu Tyr Arg Glu Arg Ser
 145 150 155

<210> 3005
 <211> 799
 <212> DNA
 <213> Homo sapiens

<400> 3005
 gtgcacagcg tggtaacca cagccctcc cagctcctca aggaggtcat cctgggtggac
 60
 gacaacagtg acaacgtgga actcaagttc aatctggacc agtacgtcaa caagcggtag
 120
 ccaggcctcg tgaagattgt ccgcaacagc cggcgggaag gactgatccg cgcgcggctg
 180
 cagggctgga aggcggccac cgcccagtc gtcggcttct ttgatgcccc cgtcagattc
 240
 aacacgggct gggccgagcc cgcactgtcg cggatccgag aggaccggcg tcgcatcgtag
 300
 ctgccagcca tcgacaacat caagtacagc acgtttgagg tgcagcagta tgcgaacgcc
 360
 gcccatggct acaactgggg cctctggtgc atgtacatca tcccccgca ggactggctg
 420
 gaccgcggcg acgagtcagc acccatcagg accccagcca tgatcggtcg ctctcttcgta
 480
 gtggaccgag agtacttcgg agacattggg ctgctggacc ccggcatgga ggtgatggc
 540
 ggcgagaacg tagaactggg catgagggtg tggcagtggt gcggcagcat ggagggtgctg
 600
 ccctgctccc gcgtggccca catcgagcgc accaggaagc cctacaacaa cgacattgac
 660
 tactacgcca agcgcaacgc cctgcgcacc gccgaggtgt ggatggatga cttcaagttc
 720
 cactgtgtaca tggcctggaa catcccatg tcgaacccag gggtaggactt cggggacgtg
 780
 tctgagaggc tggccctgc
 799

<210> 3006
 <211> 266
 <212> PRT
 <213> Homo sapiens

<400> 3006
 Val His Ser Val Val Asn His Thr Pro Ser Gln Leu Leu Lys Glu Val
 1 5 10 15
 Ile Leu Val Asp Asn Ser Asp Asn Val Glu Leu Lys Phe Asn Leu
 20 25 30
 Asp Gln Tyr Val Asn Lys Arg Tyr Pro Gly Leu Val Lys Ile Val Arg
 35 40 45
 Asn Ser Arg Arg Glu Gly Leu Ile Arg Ala Arg Leu Gln Gly Trp Lys
 50 55 60
 Ala Ala Thr Ala Pro Val Val Gly Phe Phe Asp Ala His Val Glu Phe

```

65              70              75              80
Asn Thr Gly Trp Ala Glu Pro Ala Leu Ser Arg Ile Arg Glu Asp Arg
      85              90              95
Arg Arg Ile Val Leu Pro Ala Ile Asp Asn Ile Lys Tyr Ser Thr Phe
      100             105             110
Glu Val Gln Gln Tyr Ala Asn Ala Ala His Gly Tyr Asn Trp Gly Leu
      115             120             125
Trp Cys Met Tyr Ile Ile Pro Pro Gln Asp Trp Leu Asp Arg Gly Asp
      130             135             140
Glu Ser Ala Pro Ile Arg Thr Pro Ala Met Ile Gly Cys Ser Phe Val
      145             150             155             160
Val Asp Arg Glu Tyr Phe Gly Asp Ile Gly Leu Leu Asp Pro Gly Met
      165             170             175
Glu Val Tyr Gly Gly Glu Asn Val Glu Leu Gly Met Arg Val Trp Gln
      180             185             190
Cys Gly Gly Ser Met Glu Val Leu Pro Cys Ser Arg Val Ala His Ile
      195             200             205
Glu Arg Thr Arg Lys Pro Tyr Asn Asn Asp Ile Asp Tyr Tyr Ala Lys
      210             215             220
Arg Asn Ala Leu Arg Thr Ala Glu Val Trp Met Asp Asp Phe Lys Ser
      225             230             235             240
His Val Tyr Met Ala Trp Asn Ile Pro Met Ser Asn Pro Gly Val Asp
      245             250             255
Phe Gly Asp Val Ser Glu Arg Leu Ala Leu
      260             265

```

<210> 3007

<211> 536

<212> DNA

<213> Homo sapiens

<400> 3007

```

cttaagagag gttgcaatgt gaatgataga gatggattga cagatatgac tcttttacat
60
tataacctga aatctggagc tcatggtatt ggtgatgtgg aaacagctgt aaaatttgca
120
actcagctta ttgacctggg agcagacatt agtttgcgga gtcgctggac aaacatgaat
180
gctttgcatt atgctgctta ttttgatgtc cctgaaacta taagagtgat ttgaaaaaca
240
tcgaaaccaa aagatgtgga tgccccttgc agtgatttta attttggaa agctttgcat
300
attgcagcat acaacttggtg tgcagggtgt gtgaagtgcc tcttggagca gggagcaaat
360
cctgcattta ggaatgacaa aggacagatc cctgctgatg ttgttccaga ccagtagat
420
atgccgttag agatggctga cgccgcagcc actgctaagg aaatcaagca gatgcttcta
480
gatcgggtgc ctctgtcatg taacatctca aaggccatgc tcccccttc acgcgt
536

```

<210> 3008

<211> 163

<212> PRT

<213> Homo sapiens

<400> 3008

```

Met Thr Leu Leu His Tyr Thr Cys Lys Ser Gly Ala His Gly Ile Gly
 1           5           10           15
Asp Val Glu Thr Ala Val Lys Phe Ala Thr Gln Leu Ile Asp Leu Gly
           20           25           30
Ala Asp Ile Ser Leu Arg Ser Arg Trp Thr Asn Met Asn Ala Leu His
           35           40           45
Tyr Ala Ala Tyr Phe Asp Val Pro Glu Leu Ile Arg Val Ile Leu Lys
           50           55           60
Thr Ser Lys Pro Lys Asp Val Asp Ala Pro Cys Ser Asp Phe Asn Phe
           65           70           75           80
Gly Thr Ala Leu His Ile Ala Ala Tyr Asn Leu Cys Ala Gly Ala Val
           85           90           95
Lys Cys Leu Leu Glu Gln Gly Ala Asn Pro Ala Phe Arg Asn Asp Lys
           100          105          110
Gly Gln Ile Pro Ala Asp Val Val Pro Asp Pro Val Asp Met Pro Leu
           115          120          125
Glu Met Ala Asp Ala Ala Ala Thr Ala Lys Glu Ile Lys Gln Met Leu
           130          135          140
Leu Asp Ala Val Pro Leu Ser Cys Asn Ile Ser Lys Ala Met Leu Pro
           145          150          155          160
Pro Ser Arg

```

<210> 3009

<211> 1335

<212> DNA

<213> Homo sapiens

<400> 3009

```

nnacgcgtca gctcggaaag ggcacttata agagctacca gctgacctgt tggcttcgct
 60
ggcgcggtcg tctcctctggc ccgcgcaaac aggcgggggg agcggccccg actgtggggc
120
catggcagta gtctcctcgt tctccgccgc cgctagcccta gctgagtcgc cggcttctgc
180
gctaggggct cccaccgcct ccgcaggcta aggagccgct gccaccaacg agctgtgagg
240
gttactatgc tctctctttg ccgcgctctc ctctctttgc ccgcgcaggc acctctctgg
300
ctgctcagtc ctgcctcagt gtcaaacacc aagagaagta aaattcaaca aaaatttatg
360
tgtggagttc cttcttaaaa gaagaaaaaa gtgattattt agactatgga tcggagcaaa
420
cggaattcaa ttgcaggatt tctccacgt gtggagcgtc ttgaagagtt tgaaggagg
480
ggtggaggag aaggaaatgt gagccagggt ggaagagttt ggccatcttc gtatcgagct
540
cttataagtg ccttttccag actgacgcgt ttggatgatt tcacctgtaa aaaaataggg
600
tctggcttct tttctgaagt gttcaaggta cgacaccgag cttctgggtca ggtgatggct
660

```

cttaagatga acacattgag cagtaaccgg gcaaacatgc tgaagaagaat acagctcatg
 720
 aatagactct cccatcccaa cacccttagg ttcattgggtg tatgtgttca tcaaggacaa
 780
 ttgcattgac ttacagagta tatcaactcc gggaacctgg aacagtgtct agacagtaac
 840
 ctgcatttgc cttggactgt gagggtaaaa ctggcctatg acatagcagt gggcctcagc
 900
 taccttcact tcaaaaggcat ttttcattcg gacctcacat ctaagaactg cctgataaag
 960
 agggatgaga atgggttactc tgcagtggta gctgactttg gcctggctga gaagatcccc
 1020
 gatgtcagca tggggagatga gaagctggcc gtggtgggtt cccattctg gatggcacct
 1080
 gaggtttctcc gagatgagcc ctataatgaa aaggcagatg tgttctctta tgggtatcac
 1140
 ctctgcgaga tcactgtccg catccagccc gatccggact atcttccccg cacagagaat
 1200
 ttccggctgg actatgatgc ttccagcac atggtgggag actgtcccc agattttctg
 1260
 caacttactt tcaactgctg taactgtgagt gtctttctcc ctctgccttt catcaggggc
 1320
 tggctgaacc ctttt
 1335

<210> 3010

<211> 310

<212> PRT

<213> Homo sapiens

<400> 3010

Met Asp Arg Ser Lys Arg Asn Ser Ile Ala Gly Phe Pro Pro Arg Val
 1 5 10 15
 Glu Arg Leu Glu Glu Phe Glu Gly Gly Gly Gly Gly Glu Gly Asn Val
 20 25 30
 Ser Gln Val Gly Arg Val Trp Pro Ser Ser Tyr Arg Ala Leu Ile Ser
 35 40 45
 Ala Phe Ser Arg Leu Thr Arg Leu Asp Asp Phe Thr Cys Lys Lys Ile
 50 55 60
 Gly Ser Gly Phe Phe Ser Glu Val Phe Lys Val Arg His Arg Ala Ser
 65 70 75 80
 Gly Gln Val Met Ala Leu Lys Met Asn Thr Leu Ser Ser Asn Arg Ala
 85 90 95
 Asn Met Leu Lys Glu Val Gln Leu Met Asn Arg Leu Ser His Pro Asn
 100 105 110
 Ile Leu Arg Phe Met Gly Val Cys Val His Gln Gly Gln Leu His Ala
 115 120 125
 Leu Thr Glu Tyr Ile Asn Ser Gly Asn Leu Glu Gln Leu Leu Asp Ser
 130 135 140
 Asn Leu His Leu Pro Trp Thr Val Arg Val Lys Leu Ala Tyr Asp Ile
 145 150 155 160
 Ala Val Gly Leu Ser Tyr Leu His Phe Lys Gly Ile Phe His Arg Asp
 165 170 175
 Leu Thr Ser Lys Asn Cys Leu Ile Lys Arg Asp Glu Asn Gly Tyr Ser

	180		185		190
Ala Val Val Ala Asp Phe Gly Leu Ala Glu Lys Ile Pro Asp Val Ser					
	195		200		205
Met Gly Ser Glu Lys Leu Ala Val Val Gly Ser Pro Phe Trp Met Ala					
	210		215		220
Pro Glu Val Leu Arg Asp Glu Pro Tyr Asn Glu Lys Ala Asp Val Phe					
225	230		235		240
Ser Tyr Gly Ile Ile Leu Cys Glu Ile Ile Val Arg Ile Gln Ala Asp					
	245		250		255
Pro Asp Tyr Leu Pro Arg Thr Glu Asn Phe Gly Leu Asp Tyr Asp Ala					
	260		265		270
Phe Gln His Met Val Gly Asp Cys Pro Pro Asp Phe Leu Gln Leu Thr					
275	280		285		
Phe Asn Cys Cys Asn Val Ser Val Phe Leu Pro Leu Pro Phe Ile Arg					
290	295		300		
Gly Trp Leu Asn Pro Phe					
305	310				

<210> 3011

<211> 3253

<212> DNA

<213> Homo sapiens

<400> 3011

```

nncgaggcgg cagctgcgcg gcggcacccg ggcggtcgcg gcgcgctcgg agccccgagg
60
gcacgcggcc cgggcagctc ggtgtgcgcc ccgcgagag cgggggcccc agggccgcgc
120
gacaccatga accacctgaa cgtgtgcgcc aaagcgctct atgacaatgt ggccgagtcc
180
ccggatgagc tctccttccg caagggtgac atcatgacgg tgctggagca ggacacgcag
240
ggcctggacg gctggtggct ctgctcgctg catggcgccc agggcatcgt gcctgggaac
300
cgctcaaga tcttgggtgg catgtatgat aagaagccag caggggcctgg ctccggccct
360
ccgcgccccc cggccagacc tcagcctggc ctccatgcc cagcgccctc ggctccccc
420
tacacgccca tgctcccaa cactaccag cccagccag acagcgteta cctggtgccc
480
actccagca aggtccagca aggcctctac caagtcccg gtcccagccc tcagttccag
540
tctccccag ccaagcagac atccaccttc tcgaagcaga cccccatca cccgtttccc
600
agccggcca cagacctgta ccagggtgcc ccaggggcctg gaggccctgc ccaggatatt
660
taccaggtgc cactctctgc cgggatgggg catgacatct accaggtccc cccgtccatg
720
gacacacgca gctgggaggg cagcaagccc ccggcaagg tgggtggcgcc caccgccgtg
780
gggcaggggt atgtatacga gccgcgccag ccggagcagg acgagtacga catcccgga
840
cactgtctgg ccccgggggc acaggacatc tatgatgtgc ccccggttcg ggggtgtctt
900

```

cccagccagt atggccagga ggtgtatgac acacccccca tggctgtcaa gggccccaat
960
ggccgagacc cgtgtctgga ggtgtatgac gtgccccca gtgtggagaa gggcctgcca
1020
ccgtccaacc accacgcagt ctacgcagtt cctccatcgg tgagcaagga tgtgccgat
1080
ggcccaactgc tgcgtgagga gacctacgat gtgcccccg ccttcgcaa ggccaagccc
1140
tttgaccggg cccgcacccc actggtactg ggtgcgcccc ctccagactc ccgcgcggcc
1200
gaggacgtgt attacgtgcc gcccccggt cctgacctct acgacgtgcc ccttggtgtg
1260
cggcgggcctg gcccgggcac cctgtacgat gtgccccgtg aacgggtgct tcctcctgag
1320
gtggctgatg gtggcgtggt cgacagtggt gtgtatgcgg tgccctcccc agctgaacgt
1380
gaagccccgg cagagggcaa gcgcctgtcg gcctccagca ccggcagcac acgcagcagc
1440
cagctctgct cctccttga ggtggcaggg ccgggcccgg aacccttga gctggaagt
1500
gctgtggagg ccttgccacg gctgcagcag ggtgtgagcg ccaccgttgc ccaccttctg
1560
gacctggcag gcagcgcggg tgcgactgga ggctggcgta gccctctga gccacaggag
1620
ccgctggtgc aggacctgca ggctgctgtg gccgcgctcc agagtgcctg ccaagagctg
1680
ttggagtttg cccgcagcgc ggtgggcaat gctgccaca catctgacgg tgccctgcac
1740
gccaaagctta gccggcagct gcagaagatg gaggaagtgc accagacgct ggtggcacat
1800
ggtcaggccc tcgacgtcgg ccggggaggc tctggagcca cccttgagga cctggaccgg
1860
ctggtggcct gctcggggg tgtgcccgag gacgccaagc agctggcctc ctttctgcac
1920
ggcaatgcct cactgctctt cagacggacc aaggccactg cccgggggccc tgaggggggt
1980
ggcacccctgc accccaaccc cactgacaag accagcagca tccagtcacg acccctgccc
2040
tcacccccta agttcacctc ccaggactcg ccagatggcg agtacagaa cagcgagggg
2100
ggctggatcg aggactatga ctacgtccac ctacagggga aggaggaatt tgagaagacc
2160
cagaaggagc tgctggaaaa gggcaacatc acgcggcagg gcaagagcca gctggagttg
2220
cagcagctga agcagtttga acgactgaa caggaggtgt caccgcccac agaccacgac
2280
ctggccaact ggcgcgcagc ccaaccctg gccccggggc gaacaggcgg cctggggccc
2340
tcggaccggc agctgctgct cttctacctg gagcagtgtg aggccaacct gaccacactg
2400
accaacgcgc tggacgcctt ctttacgcc gtggccacca accagcgcgc caagatcttt
2460
gtggcgaca gcaagttcgt catcctcagc gccacaagc tgggtgttcat cgggggacaca
2520

ctgtcacggc aggccaaaggc tgctgacgtg cgcagccagg tgacccacta cagcaacctg
 2580
 ctgtgcgacc tcctgcgcgg catctgggcc accaccaagg ccgctgcctt cgagtaccca
 2640
 tcgccttcgc cggcccagga catggtggag aggggtcaagg agctggggcca cagcaccagg
 2700
 cagttccgcc cgcctcctagg ccagctggca gccgcctgag ggtggtgacc ccaggaggga
 2760
 ggcaggggag ggggtgcggcg gtcccagctc cctggctccc atgtcaagag tcgctgtgcc
 2820
 acaggtcttag ggacaggacc ccagctctgc gtcggtcctg gtgcctgga tgcccaggaa
 2880
 tctgtatata ttatggccg ggcagggtgt ggggccatgc ctctcagga gccgaagccc
 2940
 aggggccggc cagtggcctt cccagcatg caccacgggc ccgggttggg tcaccagacg
 3000
 gggctggagt gtgagggtcc tgcagcctgc aggacctcgt gccacccga gggctgagcc
 3060
 tgggtccacg aggggtccgt gtcccctgac agggccagtg cagtttgggt tgcctccgc
 3120
 ctttccagga gaagaacctg aagaactatt ttctgttatt gggtttccaa tcatttgact
 3180
 aagagtctcc atttaataaa agtttttaaa agggaaaaaa aaaaaaaaaa aaaaaaaaaa
 3240
 aaaaaaaaaa aaa
 3253

<210> 3012

<211> 870

<212> PRT

<213> Homo sapiens

<400> 3012

Met	Asn	His	Leu	Asn	Val	Leu	Ala	Lys	Ala	Leu	Tyr	Asp	Asn	Val	Ala
1				5					10					15	
Glu	Ser	Pro	Asp	Glu	Leu	Ser	Phe	Arg	Lys	Gly	Asp	Ile	Met	Thr	Val
			20					25					30		
Leu	Glu	Gln	Asp	Thr	Gln	Gly	Leu	Asp	Gly	Trp	Trp	Leu	Cys	Ser	Leu
		35					40					45			
His	Gly	Arg	Gln	Gly	Ile	Val	Pro	Gly	Asn	Arg	Leu	Lys	Ile	Leu	Val
		50				55					60				
Gly	Met	Tyr	Asp	Lys	Lys	Pro	Ala	Gly	Pro	Gly	Ser	Gly	Pro	Pro	Ala
65				70					75					80	
Thr	Pro	Ala	Gln	Pro	Gln	Pro	Gly	Leu	His	Ala	Pro	Ala	Pro	Pro	Ala
				85					90					95	
Ser	Gln	Tyr	Thr	Pro	Met	Leu	Pro	Asn	Thr	Tyr	Gln	Pro	Gln	Pro	Asp
				100				105					110		
Ser	Val	Tyr	Leu	Val	Pro	Thr	Pro	Ser	Lys	Ala	Gln	Gln	Gly	Leu	Tyr
		115				120					125				
Gln	Val	Pro	Gly	Pro	Ser	Pro	Gln	Phe	Gln	Ser	Pro	Pro	Ala	Lys	Gln
		130				135					140				
Thr	Ser	Thr	Phe	Ser	Lys	Gln	Thr	Pro	His	His	Pro	Phe	Pro	Ser	Pro
145				150					155					160	
Ala	Thr	Asp	Leu	Tyr	Gln	Val	Pro	Pro	Gly	Pro	Gly	Gly	Pro	Ala	Gln

[illegible]

595 600 605
 Lys Ala Thr Ala Pro Gly Pro Glu Gly Gly Gly Thr Leu His Pro Asn
 610 615 620
 Pro Thr Asp Lys Thr Ser Ser Ile Gln Ser Arg Pro Leu Pro Ser Pro
 625 630 635 640
 Pro Lys Phe Thr Ser Gln Asp Ser Pro Asp Gly Gln Tyr Glu Asn Ser
 645 650 655
 Glu Gly Gly Trp Met Glu Asp Tyr Asp Tyr Val His Leu Gln Gly Lys
 660 665 670
 Glu Glu Phe Glu Lys Thr Gln Lys Glu Leu Glu Lys Gly Asn Ile
 675 680 685
 Thr Arg Gln Gly Lys Ser Gln Leu Glu Leu Gln Gln Leu Lys Gln Phe
 690 695 700
 Glu Arg Leu Glu Gln Glu Val Ser Arg Pro Ile Asp His Asp Leu Ala
 705 710 715 720
 Asn Trp Thr Pro Ala Gln Pro Leu Ala Pro Gly Arg Thr Gly Gly Leu
 725 730 735
 Gly Pro Ser Asp Arg Gln Leu Leu Leu Phe Tyr Leu Glu Gln Cys Glu
 740 745 750
 Ala Asn Leu Thr Thr Leu Thr Asn Ala Val Asp Ala Phe Phe Thr Ala
 755 760 765
 Val Ala Thr Asn Gln Pro Pro Lys Ile Phe Val Ala His Ser Lys Phe
 770 775 780
 Val Ile Leu Ser Ala His Lys Leu Val Phe Ile Gly Asp Thr Leu Ser
 785 790 795 800
 Arg Gln Ala Lys Ala Ala Asp Val Arg Ser Gln Val Thr His Tyr Ser
 805 810 815
 Asn Leu Leu Cys Asp Leu Leu Arg Gly Ile Val Ala Thr Thr Lys Ala
 820 825 830
 Ala Ala Leu Gln Tyr Pro Ser Pro Ser Ala Ala Gln Asp Met Val Glu
 835 840 845
 Arg Val Lys Glu Leu Gly His Ser Thr Gln Gln Phe Arg Arg Val Leu
 850 855 860
 Gly Gln Leu Ala Ala Ala
 865 870

<210> 3013

<211> 248

<212> DNA

<213> Homo sapiens

<400> 3013

nnacgcgtga agggggacagt cgtgatcttt gacgaagctc aacagtgga gaagatgtgt

60

gaagaatcgg catccttga cctgactccc catgacctgg cttcaggact ggacgtcata

120

gaccagggtgc tggaggagca gaccaaggca ggcgagcagg ctgggtgggg cctcctcctt

180

gcgaggaggt ggggtggcacc tcctcgaccc acagtgatcc tgctgcgcct ggaagggggc

240

atcgatgc

248

<210> 3014

<211> 82
 <212> PRT
 <213> Homo sapiens

<400> 3014
 Xaa Arg Val Lys Gly Thr Val Val Ile Phe Asp Glu Ala His Asn Val
 1 5 10 15
 Glu Lys Met Cys Glu Glu Ser Ala Ser Phe Asp Leu Thr Pro His Asp
 20 25 30
 Leu Ala Ser Gly Leu Asp Val Ile Asp Gln Val Leu Glu Glu Gln Thr
 35 40 45
 Lys Ala Ala Gln Gln Ala Gly Trp Gly Leu Leu Leu Ala Arg Arg Trp
 50 55 60
 Val Ala Pro Pro Arg Pro Thr Val Ile Leu Leu Arg Leu Glu Gly Ala
 65 70 75 80
 Ile Asp

<210> 3015
 <211> 438
 <212> DNA
 <213> Homo sapiens

<400> 3015
 ntgtatctct cctgtgtctt caccacaaaa atgaaaacag ctattaaaca tacctggcct
 60
 gaagacggcc ccaaggcatt ctgggggagg gaatggaaag ctgcccaca catctgggat
 120
 ccggagaagc attttcacaa ctaaacttga cctgacccag ctgcacgggt actggctcca
 180
 ggaagatggg gtgaaccatc cctcctggga cctcttgaca aaaggcaaaa gctcttgggc
 240
 aaagctgcca ggggggcttg cggggggggg gtgtgcgggt gacattgtga ttgtgtagac
 300
 ttgtgtggaa gatgttttga aactcttgga ttgaggccca acagcacgtg ctcattgtgc
 360
 cttctgcttg ccatctgca gcagttcctg cgacctggga ggtgggcgag catccacagg
 420
 tgcaacagca acgggcta
 438

<210> 3016
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 3016
 Met Ser Thr Cys Cys Trp Pro Ser Ile Pro Glu Phe Pro Asn Ile Phe
 1 5 10 15
 His Gln Ser Leu Pro Asn His Asn Val Thr Arg Thr Pro Pro Pro Arg
 20 25 30
 Lys Pro Pro Trp Gln Leu Cys Pro Arg Ala Phe Ala Phe Cys His Arg
 35 40 45
 Val Pro Gly Gly Met Val His Pro Ile Phe Leu Glu Pro Val Thr Val

```

      50              55              60
Gln Leu Gly Gln Val Lys Phe Ser Cys Glu Asn Ala Ser Pro Asp Thr
65              70              75              80
Arg Cys Val Gly Gln Leu Ser Ile Pro Ser Pro Arg Met Pro Trp Gly
      85              90              95
Arg Leu Gln Ala Arg Tyr Val
      100

<210> 3017
<211> 4796
<212> DNA
<213> Homo sapiens

<400> 3017
ncgaaaaacc ggagcagctg cgtacgctca tggacagtcc tccgaggggc gaagccgggc
60
agctgggcat gctcagtagc tggggggagt ttgggtggag agtagaaagc tgtgtgcttg
120
cctctcatcc cctcccgctg gccccgcgcc ccttgcgcc taccagacca gtagtagttc
180
cccagcgtgc gcccggggag accgggaaca tggcgctggg agcgctgtag cagctgagaa
240
ggggctgagg caccgccgct tcgctgacag ccggccacca gatgttcatt cattctagag
300
aaagtggaaa acttagaagc ctaattaatg actgtcttct ggacctctga gacctgttt
360
ctagtgtttt ccgtggaata ttatcagaaa tacactgtgg tgaatgctt ccacctcttg
420
ctaaaatgaa cactgaggaa aaatgaagaa gactgacaa caccagcgaa aagtgcaga
480
atagaaatag ccacactcct ctggagtctt taattcatcc acagccatca tataaaggtt
540
ttggcatcat gtttggaag aaaaagaaaa agattgaaat atctggcccg tccaacttg
600
aacacagggt tcatactggg ttgatccac aagagcagaa gtttaccggc cttcccccagc
660
agtggcagag cctgttagca gatacgccca acaggccaaa gcctatggg gaccttcat
720
gcatcacacc catccagctg gctcctatga agacaatcgt tagaggaaac aaaccttgca
780
aggaaacctc catcaacggc ctgctagagg attttgacaa catctcgggt actcgtccca
840
actccctaag gaaagaaagc ccacccacc cagatcaggg agcctccagc cagcgtccag
900
gccacggga agaaaatggc ttcacacact tctccagta ttccagcga tccgatacta
960
ctgctgacta cagcaccgaa aagtacaggg agaagagtct ctatggagat gatctggatc
1020
cgtattatag aggcagccac gcagccaagc aaaatgggca cgtaatgaaa atgaagcacg
1080
gggagggccta ctattctgag gtgaagcctt tgaatccga ttttgccaga ttttctgcg
1140
attatcactc acatttggac tcactgagca aaccaagtga atacagtgc ctcaagtggg
1200

```

agtatcagag agcctcgagt agtccccctc tggattatctc attccaatc acaccttcta
1260
gaactgcagg gaccagcggg tgctccaagg agagcctggc gtacagtga agtgaatggg
1320
gaccagcct ggatgactat gacaggaggc caaagtcttc gtacctgaat cagacaagcc
1380
ctcagccccc catgcggcag aggtccaggc caggctcggg actccaggaa ccgatgatgc
1440
catttgagc aagtgcattt aaaacccatc cccaaggaca ctctacaac tcttaccct
1500
accctcgctt gtcogagccc acaatgtgca ttccaaaggc ggattacgat ccagcacaga
1560
tggctctcag cctccactg tcagggtctg acacctacce cagggggcct gccaaactac
1620
ctcaaagtca aagcaaatcg ggctattcct caagcagta ccagtaccg tctgggtacc
1680
acaaagccac cttgtaccat cccccctccc tgcagagcag ttgcagtag atctccacgg
1740
cttctacct gagctccctc agcctctcat ccagcatacc cgcgcgccag ctggggctcc
1800
tctctcagac agcagccctc cagggtgttc catgaacagt ttccgggggc cctgcagctg
1860
gtggtcagcc caggagaccc cagggaatac ttggccaaat ttatcaaaat cggggaaggc
1920
tcaaccggca tcgtatgcat cgcaccgag aaacacacag ggaacaagt tgcagtgaag
1980
aaaatggacc tccggaagca acagagacga gaactgctt tcaatgaggt cgtgatcatg
2040
cgggattacc accatgacaa tgtggttgac atgtacagca gctacctgt cggcgatgag
2100
ctctgggttg tcatggagt tctagaaggc ggtgcctga cagacattgt gactcacacc
2160
agaatgaatg aagaacagat agctactgtc tgccgtgac ttctgagagc tctctcctac
2220
cttcataacc aaggagtgat tcacagggac ataaaaagtg actccatcct cctgacaagc
2280
gatggccgga taaagtgtgc tgattttggc ttctgtgctc aagtttccaa agaggtgccc
2340
aagaggaat cattggttgg cactccctac tggatggccc ctgaggtgat tctagggcta
2400
ccttatggga cagagtgga catctggtcc ctoggatca tgggtataga aatgattgat
2460
ggcgagcccc cctacttcaa tgagcctccc ctccaggcga tgcggaggat ccgggacagt
2520
ttacctcaa gagtgaagga cctacacaag gtttcttcag tgctccgggg attcctagac
2580
ttgatgttgg tgaggagacc ctctcagaga gcaacagccc aggaactcct cggacatcca
2640
ttcttaaaac tagcaggctc acogtcttgc atcgtecccc tcatgagaca atacaggcat
2700
cactgagcag aggattcgtg taggtggcaa agctagatga ggacatgaga ataattcagg
2760
agaacaaaag gaaacacaga acatgcaaaa ggccgtgtgca ttctagacca gccaatgggt
2820

gggacagcgt gatgaccggc aggggttcaac agaccagggc atcttcttgt gtcttaaca
2880
ggcatctctc cactgacagc cgggtgtggc acttgagca cggtcttaaat aagtcattat
2940
tatatttttc agcccttcat ccagcaaatc agaaggactc agtcaaaact ccgttatgat
3000
atatcctagc cacatgcagg gtaacatgta ggattttcta tattgaaaga ataactttct
3060
ggcaaaaaaa aaaaaaaaaa gaaagaaagg aaaacaaaaa gcactttttt cttaatggta
3120
gcagtataat gtatttttgca acgaatttgt aatttttctg tacgatagtt ttgataattt
3180
atagtacttt gatgtcatgt agccattgta tcagttgaag taatacttgt ttactagagg
3240
agttttgaaca aagcctttcc tactttttta tccctttaag agaaccaatg attctttagg
3300
aactttgaat actgaatgac tctcaatcac cgtcagcttt agtaaaatct cttctctatc
3360
ctaacaagtg tcttatttgg tgaagaaga attaagagtg atggtgatgg tgtgcacggt
3420
tcattaatcc aacaaaaaat aatgaaataa aatttgagcc acagtatacc actccttggg
3480
ataaagttaa atattttttaa agatcacatt ttccatgaac gcctctagta gcaaacatt
3540
cttttgacac ccacaatggt tccctcagtg ccttttctca aatgggtaca atgttccctt
3600
gtggcccaat ttccctccca gggagcaatt tcagtgtctg gatcattgga ttcagttccc
3660
aaaatagaat gtttcagtga gaccatgaga attccaggct cacagaggga gaggagagaa
3720
cagggaaga cgtttggttt catttgtcac cattttttaa actctgtatg ctagcacacc
3780
aaactcttgt ctatatttac ctttgtacca cagtattaat cgctattgtt catgtatcgt
3840
gctggaagtc tgaactgact ctagaggatg aattagcaag agggattttt accaggatg
3900
atctgaactc agttgtgccc atgttataat gtgtttccga cataggagag tcgtgtcgtc
3960
gtctagatct tcttgaatgt tgataaaaaat gaatgactac tacaatacat ttgtgtttgc
4020
ttgttgatg aatttgcctg ttaactgtag gccaatatag atttgccttt aaaaactctg
4080
aagagctaca tagtcatcat tagtttctat taattatgca tcagacaaaa gccatttgtt
4140
accaaactgg gaaaacagag gcttttctta actatttcac atactgtaac aaatatgaat
4200
ttaaatttgt gatagcgctc tggttgctct aagcataatt aagaattttt gtaattaata
4260
ggttgctaata tatttatcac tgctaaaaag gaaaaaaggc ataaaatgac cttctactga
4320
ttagattttc agttttcttt caaactggaa atgcctccat aaatatgatc tatgattttg
4380
cttcataaaa cagcaaatca atgtttttatg taaaatatata aagcattaat ataaatatgt
4440

gagaataaaa acaatctaaa tccagaaaat ggcagtccta aatgttcattg agacagattg
 4500
 tattaatttta accaggacta ttagaagta gaaagaaaag aaaaagaaaa tcttttttaa
 4560
 accagaataa acattaaaaa ctattgcaga aaatagtga ttttggttc caaacatttt
 4620
 cgacagtgtg atggaaattt ttctgtattt ttcttaccat cgggtatttt ttaagattt
 4680
 cattgagttt accaaaagtt actgtagctt aaaaggtttt gtgagcacta actattggca
 4740
 gaaactgcat ttgcaataa aaataaatgt ttgcctttta aaaaaaaaaa aaaaaa
 4796

<210> 3018

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3018

Cys	His	Leu	Glu	Gln	Val	His	Leu	Lys	Pro	Ile	Pro	Lys	Asp	Thr	Pro
1				5					10				15		
Thr	Thr	Pro	Thr	Pro	Thr	Leu	Ala	Cys	Pro	Ser	Pro	Gln	Cys	Ala	Phe
		20						25				30			
Gln	Arg	Trp	Ile	Thr	Ile	Gln	His	Arg	Trp	Ser	Ser	Ala	Leu	His	Cys
	35					40					45				
Gln	Gly	Leu	Thr	Pro	Thr	Pro	Gly	Ala	Leu	Pro	Asn	Tyr	Leu	Lys	Val
	50				55					60					
Lys	Ala	Asn	Arg	Ala	Ile	Pro	Gln	Ala	Val	Thr	Ser	Thr	Arg	Leu	Gly
65				70					75					80	
Thr	Thr	Lys	Pro	Pro	Cys	Thr	Ile	Thr	Pro	Pro	Cys	Arg	Ala	Val	Arg
				85					90					95	
Ser	Thr	Ser	Pro	Arg	Leu	Pro	Thr								
					100										

<210> 3019

<211> 882

<212> DNA

<213> Homo sapiens

<400> 3019

ggcttagcca aaaggggagg ggcagcacgg cccgcggcgg gcgttcgctg gagctggtgg
 60
 accggggcggc tgaccgaggg ggcgacgcgc ggcggggcag accgctgggg actgcggggc
 120
 gcgctgtgtc cgctcgccatg acagatcaga cctattgtga ccgctgggtg caggacacgc
 180
 ctttctgtac aggcctatggc cgcttgagtg agcagcaggt ggacaggatc atctccagc
 240
 tgaaccgtta ctaccacag atccttacc acaaggaggc ggaagggtg ctgaggagtt
 300
 ccggaacccc aaggcatcct tgcgtgtgcg gctctgtgac ctctgagcc acctgcagcg
 360
 gagctgtgag cgggactgcc agggagttcta ccgagccctg tatatccatg cccagccct
 420

gcacagccgc ctgccagcc gccacgctct gcagaactca gattgcacag agctagactc
 480
 gggcagccag agcggcgagc tgagtaacag gggacccatg agcttctctg ctggcctggg
 540
 ccttgctgtg ggactggccc tgcctctgta ctgctatccg ccagaccoca agggcctgcc
 600
 agggaccggg cgcgtcctcg gtttctcgcc tgtcatcatc gacagacatg tcagccgcta
 660
 cctgtgggcc ttcttggcag atgacctagg ggggtcttga cagaccctgg acccagggcc
 720
 tcacctgcca ctcaacaaaa gagtctctga gccggcccg cagggggact gctgtcttct
 780
 tttctaaatg catatttttc attatttata atttgtgtaa aaaacacacc ttcaccttac
 840
 aaggtgctga ccatattaaa tggtcaggtt ctctcaaaaa aa
 882

<210> 3020

<211> 58

<212> PRT

<213> Homo sapiens

<400> 3020

Gln	Gly	Thr	His	Glu	Leu	Pro	Gly	Trp	Pro	Gly	Pro	Cys	Cys	Gly	Thr
1				5				10				15			
Gly	Pro	Ala	Pro	Val	Leu	Leu	Ser	Ala	Arg	Pro	Gln	Gly	Pro	Ala	Arg
		20					25				30				
Asp	Pro	Ala	Arg	Pro	Arg	Phe	Leu	Ala	Cys	His	His	Arg	Gln	Thr	Cys
		35				40					45				
Gln	Pro	Leu	Pro	Ala	Gly	Leu	Pro	Gly	Arg						
		50				55									

<210> 3021

<211> 1008

<212> DNA

<213> Homo sapiens

<400> 3021

ntgtacatac agtacggaat gacttcagat tctgaaaaaa ggcaaatctg accaattgag
 60
 gcagaaagca ggtcagtggt tccccaggtc tggaactggg gtgggttact gatagcaaat
 120
 gggcatgtgg gtgccttggg gtagggtaaa ggttccatct tgatcgcggt ggtgtttccc
 180
 aagtggtatc actcacaaa actatactta gaactcaaaa ctgcgcaaat atatacttaa
 240
 aatggatgca gttggttatg tataaattat acctcaataa agttgattaa aaacatcaat
 300
 tcttcagaaa attcttttct gacctctccc ctctcagaag aggtcggggc tccttggtatg
 360
 catacccata ccactacaa cctgtattta ttttttttga aacatggtct ctttctgtcg
 420
 tccaggtctg agtgcagtgg cgcaatcatg gatcactgca gccttgacct tectggctca
 480

agtgatcctc ccggctcacc ccagtagct ggaaccacag gcgcgcttc acaccggaaa
 540
 gccattttc tagaggcgga aaccgaagcg ccagtgga aaggcgacc gccgggatg
 600
 cgggtgtctc aacgcgtgc cacctggggc ccaacgcgtt gacctgcgg tcaggttgct
 660
 tccgcggact acggttctgg ctgcctagct ctggaaggga gcaccgggag ggaatggttg
 720
 caactcccaa ggaggggacc cagggatccg agaaaggga acttggggta ggtggggttg
 780
 gattttgact ggagagaaga aagggtcagg agtgcagggc ggttacctgg ggagctgcgt
 840
 ggactcgcgc agacgggaag caggcgcgtg ctggcgggtga cctggggccg gagaggaacg
 900
 ctgggtcccc tccctgggag ttgccaccat tccctcccg tgctcccttc cagagctagc
 960
 gagccagaac cgtagtcgcg ggaacaacct gaccgcgagt caacgcgt
 1008

<210> 3022

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3022

Met	His	Thr	His	Thr	His	Tyr	Asn	Leu	Tyr	Leu	Phe	Phe	Leu	Lys	His
1					5				10					15	
Gly	Leu	Phe	Leu	Ser	Ser	Arg	Leu	Glu	Cys	Ser	Gly	Ala	Ile	Met	Asp
			20					25					30		
His	Cys	Ser	Leu	Asp	Leu	Pro	Gly	Ser	Ser	Asp	Pro	Pro	Gly	Ser	Pro
			35				40					45			
Pro	Val	Ala	Gly	Thr	Thr	Gly	Ala	Leu	Pro	His	Arg	Lys	Ala	His	Phe
	50					55					60				
Leu	Glu	Ala	Glu	Thr	Glu	Ala	Pro	Ser	Gly	Lys	Gly	Asp	Pro	Pro	Gly
	65				70				75				80		
Met	Arg	Gly	Ala	Gln	Arg	Ala	Ala	Thr	Trp	Gly	Pro	Thr	Arg		
				85					90						

<210> 3023

<211> 1834

<212> DNA

<213> Homo sapiens

<400> 3023

ngctaatgta taccatgcta gcacagcaaa tggagagagc agagcaatca aaatttataa
 60
 aacttctatt ttggtgttca aagatcgga taaatatgta agtgagaaat tcaggtaagt
 120
 tcagattttt cctccagtt ggtttaattt ctatttcccta aaacattaaa ataataatgg
 180
 aatgattgaa ataataaaca tttttcttat tcaagatttc gtcattggcta ttgtaaaggga
 240
 aaccctagga aaatgggtgaa aacttgggca gaaaaagaaa tgaggaaactt aatcaggcta
 300

aacacagcag agataccatg tccagaacca ataatgctaa gaagtcattg tcttgcattg
360
agtttcatcg gtaaagatga catgcctgca ccactcttga aaaaagtcca gttatcagaa
420
tccaaggctc gggagttgta cctgcaggtc attcagtaca tgagaagaat gtatcaggat
480
gccagacttg tccatgcaga tctcagtcaa tttaacatgc tgtaccacgg tggaggcgtg
540
tatatcatcg acgtgtctca gtccgtggag cagaccacc caccatgcctt ggagttcttg
600
agaaaggatt gcgccaacgt caatgatttc tttatgaggc acagtgttgc tgtcatgact
660
gtcggggagc tctttgaatt tgtcacagat ccattccatta caccatgagaa catggatgct
720
tatctctcaa aggccatgga aatagcatct caaaggacca aggaagaacg gtctagccaa
780
gatcatgtgg atgaagaggt gtttaagcga gcataatatt ctagaacctt gaataagtg
840
aaaaattatg agagggatat ggacataatt atgaaattga aggaagagga catggccatg
900
aatgcccac aagataatat tctaccagac tgttacagga ttgaagaag atttgtcagg
960
agttcagaag gtccctgcac tctagaaaat caagtggagg aaaggacttg tctctgattc
1020
gaagatattg gaagctctga gtgctctgac acagactctg aagagcaggg agaccatgcc
1080
cgcccaaga aacacaccac ggacctgac attgataaaa aagaagaaa aaagatggtc
1140
aaggaagccc agagagagaa aagaaaaaac aaatttccta aacatgtgaa aaaaagaaag
1200
gagaagacag ccaagacgaa aaaaggcaaa tagaatgaga accatattat gtacagtcat
1260
tttctcagt tctttttctc gcttgaactc ttaagctgca tctggaagat ggcttattgg
1320
ttttaaccag attgtcatcg tggcactgac tgtgaagacg gattcaaatg ttttcatgta
1380
actatgtaaa aagctctaag ctctagagtc tagatccagt cactgactct gtctgtgtgt
1440
gacagaggat ttattttaagc tattatttta ataagaact ttgtacattt ttatttttat
1500
atttttttct cttacaaata tgtttttgga agcatgataa atgtttaaat gtagtcaaca
1560
tctgtaactc ttacatgagt gtccagaggc actcatggga aaattggttt tgctttcttt
1620
gtacacacca gagaccatc tgaggctcat tgattataag gccatgttta tataaaggga
1680
atttcaccca cagttcagct ggctgttgat tttcactgca actctgcctt tgtgtgtatt
1740
ggcgatcatt tgtaatgctc ttacacttcg tctttaatgt tctttttgga gttaggacct
1800
ctcagttcat aaagtttttt acaattcaaa aaaa
1834

<210> 3024

<211> 347

<212> PRT

<213> Homo sapiens

<400> 3024

```

Asn Asn Lys His Phe Ser Tyr Ser Arg Phe Arg His Gly Tyr Cys Lys
 1          5          10          15
Gly Asn Pro Arg Lys Met Val Lys Thr Trp Ala Glu Lys Glu Met Arg
 20          25          30
Asn Leu Ile Arg Leu Asn Thr Ala Glu Ile Pro Cys Pro Glu Pro Ile
 35          40          45
Met Leu Arg Ser His Val Leu Val Met Ser Phe Ile Gly Lys Asp Asp
 50          55          60
Met Pro Ala Pro Leu Leu Lys Asn Val Gln Leu Ser Glu Ser Lys Ala
 65          70          75          80
Arg Glu Leu Tyr Leu Gln Val Ile Gln Tyr Met Arg Arg Met Tyr Gln
 85          90          95
Asp Ala Arg Leu Val His Ala Asp Leu Ser Glu Phe Asn Met Leu Tyr
100          105          110
His Gly Gly Gly Val Tyr Ile Ile Asp Val Ser Gln Ser Val Glu His
115          120          125
Asp His Pro His Ala Leu Glu Phe Leu Arg Lys Asp Cys Ala Asn Val
130          135          140
Asn Asp Phe Phe Met Arg His Ser Val Ala Val Met Thr Val Arg Glu
145          150          155          160
Leu Phe Glu Phe Val Thr Asp Pro Ser Ile Thr His Glu Asn Met Asp
165          170          175
Ala Tyr Leu Ser Lys Ala Met Glu Ile Ala Ser Gln Arg Thr Lys Glu
180          185          190
Glu Arg Ser Ser Gln Asp His Val Asp Glu Glu Val Phe Lys Arg Ala
195          200          205
Tyr Ile Pro Arg Thr Leu Asn Glu Val Lys Asn Tyr Glu Arg Asp Met
210          215          220
Asp Ile Ile Met Lys Leu Lys Glu Glu Asp Met Ala Met Asn Ala Gln
225          230          235          240
Gln Asp Asn Ile Leu Pro Asp Cys Tyr Arg Ile Glu Glu Arg Phe Val
245          250          255
Arg Ser Ser Glu Gly Pro Cys Thr Leu Glu Asn Gln Val Glu Glu Arg
260          265          270
Thr Cys Ser Asp Ser Glu Asp Ile Gly Ser Ser Glu Cys Ser Asp Thr
275          280          285
Asp Ser Glu Glu Gln Gly Asp His Ala Arg Pro Lys Lys His Thr Thr
290          295          300
Asp Pro Asp Ile Asp Lys Lys Glu Arg Lys Lys Met Val Lys Glu Ala
305          310          315          320
Gln Arg Glu Lys Arg Lys Asn Lys Ile Pro Lys His Val Lys Lys Arg
325          330          335
Lys Glu Lys Thr Ala Lys Thr Lys Lys Gly Lys
340          345

```

<210> 3025

<211> 1370

<212> DNA

<213> Homo sapiens

<400> 3025
nnacgcgtgc ccagacagga tggcttttgc gggaagataa aacacattag atggatcaact
60
tcaagagaag ataaaaattg aaactgctaa tcactctagta ctactgctaa gccgctccaa
120
agcttctgaa gcactctaggt gatcttctta aatctttgac aggaagaggt aggaactttt
180
ttggcagact tttacctggt gaatggactt gttttagaat caaggaaaag aagagaacat
240
ctcagtgaag aggatattct tcgaaataag gccatcatgg agagtttgag taaagggtgga
300
aacataatgg aacagaattt tgagccgatt cgaagacagt ctcttacacc tctctctcag
360
aacactatta catgggaaga atatatatct gctgaaaatg gaaaagctcc tcactctgggt
420
agagaattgg tgtgcaaaga gagtaagaaa acgtttaaag ctacgatagc catgagccag
480
gaatttccct tagggataga gttattattg aatgttttag aagtagtagc tcccttcaag
540
cactttaaca agcttagaga atttgttcag atgaagcttc ctccaggctt tccgtgtaaa
600
ttagatatac ctgtgtttcc cacaatcaca gccactgtga cttttcagga gtttcgatgc
660
gatgaatttg atggctccat ctttactata cctgatgact acaaggaaga cccaagccgt
720
tttccctgac ttttaactgac gtggaagagg atgccgtcta accaaggaaa gaaaatacag
780
agaccctaga agtggatcca aatagaaggg acaaatgctt tcagtgaaga aaaggggaatt
840
acacattgaa tcgacacatc agtaatacga tacagtgaag tgggcctcta ataagaattt
900
cagcgagttt tctgatgtgc cattttttgt ctttttaaaa atatacatat tataaatgta
960
atagtttgac acattaatga ccctaagacc tgcgtatgtg aagcagctat gagtgcgtgtg
1020
atttgttttt aaaaattttt acacttcttg ttgaaatata tatgcatata aatatatcta
1080
tatctatata tatatctaaa acactcctgg accattaacg taaattaaat gtcttaagag
1140
atatggagcc cttttaaact tgcctcttt atgcaaggtg acatttataa atattccttc
1200
gagctttggt ttcataaaat gtaactatg taacattatg tatagttcag taatttgaat
1260
gtttgttcaa tataatgaac tagaagggaat gcaattttct gtagatgaat gaaccaaattg
1320
gtaaccatta aacaattgca ttttaaaaaa aaaaaaaaaa aaaaaaaaaa
1370

<210> 3026
<211> 152
<212> PRT
<213> Homo sapiens

<400> 3026

```

Met Glu Ser Leu Ser Lys Gly Gly Asn Ile Met Glu Gln Asn Phe Glu
 1              5              10              15
Pro Ile Arg Arg Gln Ser Leu Thr Pro Pro Pro Gln Asn Thr Ile Thr
      20              25              30
Trp Glu Glu Tyr Ile Ser Ala Glu Asn Gly Lys Ala Pro His Leu Gly
      35              40              45
Arg Glu Leu Val Cys Lys Glu Ser Lys Lys Thr Phe Lys Ala Thr Ile
      50              55              60
Ala Met Ser Gln Glu Phe Pro Leu Gly Ile Glu Leu Leu Asn Val
      65              70              75              80
Leu Glu Val Val Ala Pro Phe Lys His Phe Asn Lys Leu Arg Glu Phe
      85              90              95
Val Gln Met Lys Leu Pro Pro Gly Phe Pro Val Lys Leu Asp Ile Pro
      100              105              110
Val Phe Pro Thr Ile Thr Ala Thr Val Thr Phe Gln Glu Phe Arg Tyr
      115              120              125
Asp Glu Phe Asp Gly Ser Ile Phe Thr Ile Pro Asp Asp Tyr Lys Glu
      130              135              140
Asp Pro Ser Arg Phe Pro Asp Leu
      145              150

```

<210> 3027

<211> 1154

<212> DNA

<213> Homo sapiens

<400> 3027

```

nccgtttttcc cgctgcacgt ggtggccact gttggcttct gaatgggtttg caaggcggat
60
atccacgcca aggccttttg atcgcccggt ggtacatccg tctgagccgt tctctttccat
120
cgacagcggc ggcctccgcg gcgctctcca gtcattggact accggcggct tctcatgagc
180
cggggtgttcc ccgggcaatt cgacgacgcg gactctcttg acagtgaaaa cagagacttg
240
aagacagtca aagagaagga tgacattctg tttgaagacc ttcaagacaa tgtgaatgag
300
aatggtgaag gtgaaataga agatgaggag gaggaggggt atgatgatga tgatgatgac
360
tgggactggg atgaaggagt tggaaaactc gccagggtt atgtctggaa tggaggaagc
420
aaaccacagg caaatcgaca gacctccgac agcagttcag ccaaaatgtc tactccagca
480
gacaaggctc tacggaaatt tgagaataaa attaatctag ataagctaaa tgttactgat
540
tcggtcataa ataaagtcac cgaaaagtct agacaaaagg aagcagatat gtatcgcatc
600
aaagataagg cagacagagc aactgtagaa cagggtgttg atcccagaac aagaatgatt
660
ttattcaaga tgttgactag aggaatcata acagagataa atggctgcat tagcacagga
720
aaagaagcta atgtatacca tgctagcaca gcaaatggag agagcagagc aatcaaaatt
780

```

tataaaactt ctatttttgt gttcaaagat cgggataaat atgtaagtgg agaattcaga
 840
 tttcgtcatg gctattgtaa aggaaccctt aggaataatg tgaataacttg ggcagaaaaa
 900
 gaaatgagga acttaatacag gctaaacaca gcagagatac catgtccaga accaataatg
 960
 ctaagaagtc atgttcttgt catgagtctt atcggtaaag atgacatttc ttttcattca
 1020
 aggcctgcac cactcttgaa aaatgtccag ttatcagaat ccaaggctcg ggagttgtac
 1080
 ctgcagggtca ttcatgtacat gagaagaatg tatcaggatg ccagacttgt ccattgcagat
 1140
 cgtcgggtgag aggc
 1154

<210> 3028

<211> 331

<212> PRT

<213> Homo sapiens

<400> 3028

Met	Asp	Tyr	Arg	Arg	Leu	Leu	Met	Ser	Arg	Val	Val	Pro	Gly	Gln	Phe
1				5					10					15	
Asp	Asp	Ala	Asp	Ser	Ser	Asp	Ser	Glu	Asn	Arg	Asp	Leu	Lys	Thr	Val
		20						25					30		
Lys	Glu	Lys	Asp	Asp	Ile	Leu	Phe	Glu	Asp	Leu	Gln	Asp	Asn	Val	Asn
		35					40					45			
Glu	Asn	Gly	Glu	Gly	Glu	Ile	Glu	Asp	Glu	Glu	Glu	Gly	Tyr	Asp	
	50					55				60					
Asp	Asp	Asp	Asp	Asp	Trp	Asp	Trp	Asp	Glu	Gly	Val	Gly	Lys	Leu	Ala
	65				70				75					80	
Lys	Gly	Tyr	Val	Trp	Asn	Gly	Gly	Ser	Asn	Pro	Gln	Ala	Asn	Arg	Gln
			85						90					95	
Thr	Ser	Asp	Ser	Ser	Ser	Ala	Lys	Met	Ser	Thr	Pro	Ala	Asp	Lys	Val
			100					105					110		
Leu	Arg	Lys	Phe	Glu	Asn	Lys	Ile	Asn	Leu	Asp	Lys	Leu	Asn	Val	Thr
		115				120						125			
Asp	Ser	Val	Ile	Asn	Lys	Val	Thr	Glu	Lys	Ser	Arg	Gln	Lys	Glu	Ala
		130				135					140				
Asp	Met	Tyr	Arg	Ile	Lys	Asp	Lys	Ala	Asp	Arg	Ala	Thr	Val	Glu	Gln
	145				150				155					160	
Val	Leu	Asp	Pro	Arg	Thr	Arg	Met	Ile	Leu	Phe	Lys	Met	Leu	Thr	Arg
			165					170						175	
Gly	Ile	Ile	Thr	Glu	Ile	Asn	Gly	Cys	Ile	Ser	Thr	Gly	Lys	Glu	Ala
			180					185					190		
Asn	Val	Tyr	His	Ala	Ser	Thr	Ala	Asn	Gly	Glu	Ser	Arg	Ala	Ile	Lys
		195					200					205			
Ile	Tyr	Lys	Thr	Ser	Ile	Leu	Val	Phe	Lys	Asp	Arg	Asp	Lys	Tyr	Val
		210				215					220				
Ser	Gly	Glu	Phe	Arg	Phe	Arg	His	Gly	Tyr	Cys	Lys	Gly	Asn	Pro	Arg
	225				230				235					240	
Lys	Met	Val	Lys	Thr	Trp	Ala	Glu	Lys	Glu	Met	Arg	Asn	Leu	Ile	Arg
			245					250						255	
Leu	Asn	Thr	Ala	Glu	Ile	Pro	Cys	Pro	Glu	Pro	Ile	Met	Leu	Arg	Ser

```

                260                265                270
His Val Leu Val Met Ser Phe Ile Gly Lys Asp Asp Ile Ser Phe His
      275                280                285
Ser Arg Pro Ala Pro Leu Leu Lys Asn Val Gln Leu Ser Glu Ser Lys
      290                295                300
Ala Arg Glu Leu Tyr Leu Gln Val Ile Gln Tyr Met Arg Arg Met Tyr
305                310                315                320
Gln Asp Ala Arg Leu Val His Ala Asp Arg Arg
      325                330

<210> 3029
<211> 344
<212> DNA
<213> Homo sapiens

<400> 3029
acgcgtgatg cacggaaggg ccttcgggtt ttgcattttc cttatctgct gaccttacag
60
ctgaaaagat tcgattttga ttatacaacc atgcatagga ttaaaactgaa tgatcgaatg
120
acatttcccg aggaactaga tatgagtact tttattgatg ttgaagatga aaaatctcct
180
cagactgaaa gttgcactga caggggagca gaaaatgaag gtagttgtca cagtgatcag
240
atgagcaacg atttctccaa tgatgatggg gttgatgaag gaatctgttt tgaaccaatc
300
agtggaactg aaaagatctc aaaatctgga cctgaaaaga attc
344

<210> 3030
<211> 114
<212> PRT
<213> Homo sapiens

<400> 3030
Thr Arg Asp Ala Arg Lys Gly Leu Arg Phe Leu His Phe Pro Tyr Leu
1      5      10      15
Leu Thr Leu Gln Leu Lys Arg Phe Asp Phe Asp Tyr Thr Thr Met His
      20      25      30
Arg Ile Lys Leu Asn Asp Arg Met Thr Phe Pro Glu Glu Leu Asp Met
      35      40      45
Ser Thr Phe Ile Asp Val Glu Asp Glu Lys Ser Pro Gln Thr Glu Ser
      50      55      60
Cys Thr Asp Arg Gly Ala Glu Asn Glu Gly Ser Cys His Ser Asp Gln
65      70      75      80
Met Ser Asn Asp Phe Ser Asn Asp Asp Gly Val Asp Glu Gly Ile Cys
      85      90      95
Phe Glu Thr Asn Ser Gly Thr Glu Lys Ile Ser Lys Ser Gly Pro Glu
      100      105      110
Lys Asn

```

```

<210> 3031
<211> 567

```

<212> DNA

<213> Homo sapiens

<400> 3031

gctgaagaag cggaggatca tggacgcate cccgaccctg atgattttgt gccgcctgtg
 60
 cctccccctt cctattttgc cactgtttac tcgtgcacac cccggatgaa ccgcagattg
 120
 gttggtcctg atgttattcc cctgccacac atctacggag ctogaatcaa aggtgtggaa
 180
 gtgttctgtc ctctggatcc cccgccgcca tatgaagctg tggtgagcca gatggaccag
 240
 gagcagggat ctctattcca aatgtcagaa ggatcagaag ctgctgtgat cccattggat
 300
 ctgggctgca cacaagtgc tcaagatggg gacattccta acatacctgc cgaagaaaaa
 360
 gcattccacct caactcccag ttcaaccctg gtgcgtccta tcagaagccg gagagccctc
 420
 ccacccttga ggaccaggtc gaagagtgc cctgtgctcc atccttctga ggagagagct
 480
 gccccagtgc tcagctgtga agctgcaaca cagactgaaa ggagactgga tctggctgca
 540
 gtgactctga ggagaggctt gagatct
 567

<210> 3032

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3032

Ala Glu Glu Ala Glu Asp His Gly Arg Ile Pro Asp Pro Asp Asp Phe
 1 5 10 15
 Val Pro Pro Val Pro Pro Pro Ser Tyr Phe Ala Thr Phe Tyr Ser Cys
 20 25 30
 Thr Pro Arg Met Asn Arg Arg Leu Val Gly Pro Asp Val Ile Pro Leu
 35 40 45
 Pro His Ile Tyr Gly Ala Arg Ile Lys Gly Val Glu Val Phe Cys Pro
 50 55 60
 Leu Asp Pro Pro Pro Tyr Glu Ala Val Val Ser Gln Met Asp Gln
 65 70 75 80
 Glu Gln Gly Ser Ser Phe Gln Met Ser Glu Gly Ser Glu Ala Ala Val
 85 90 95
 Ile Pro Leu Asp Leu Gly Cys Thr Gln Val Thr Gln Asp Gly Asp Ile
 100 105 110
 Pro Asn Ile Pro Ala Glu Glu Asn Ala Ser Thr Ser Thr Pro Ser Ser
 115 120 125
 Thr Leu Val Arg Pro Ile Arg Ser Arg Arg Ala Leu Pro Pro Leu Arg
 130 135 140
 Thr Arg Ser Lys Ser Asp Pro Val Leu His Pro Ser Glu Glu Arg Ala
 145 150 155 160
 Ala Pro Val Leu Ser Cys Glu Ala Ala Thr Gln Thr Glu Arg Arg Leu
 165 170 175
 Asp Leu Ala Ala Val Thr Leu Arg Arg Gly Leu Arg Ser

180

185

<210> 3033

<211> 821

<212> DNA

<213> Homo sapiens

<400> 3033

nnacgcgtga agggggaaaa tgacaagaca gacttgatg ttatacgaga aaatcataga
 60
 ttccatgga atgaggagga cgaatggac atgacttggg agaagagact tgctaagaaa
 120
 tactatgata aattatttaa ggaatactgc atagcagatc tcagtaaata taaagaaaaat
 180
 aagtttggat ttaggtggcg agtagaaaaa gaagtaattt caggaaaagg tcaatttttc
 240
 tgtggaaata aatattgtga taaaaaagaa ggcttaaaga gttgggaagt taatttttgt
 300
 tatattgagc atggtgagaa gagaatgca cttgttaaat taaggttatg ccaagaatgt
 360
 tccattaat taaatttcca tcacaggaga aaagaaatca agtcaaaaaa aagaaaagat
 420
 aaaacccaaa aagactgtga agagtcatca cataaaaaat ccagattatc ttctgcagaa
 480
 gaggcctcca agaaaaaaga taaaggacat tcactctcaa agaaatctga agattctcta
 540
 cttagaaact ctgatgagga agaaagtgtc tcagaatctg aactttgaa gggccacta
 600
 ccagagacag atgaaaaatc acaggaagaa gaatttggat agtattttca gggatttgtt
 660
 ctatgagacg agagagagaa gcctcgcctc cttaatgtga aacttcatga agtttttaaac
 720
 ctcatgcaat ttgaaattcc atctaogtct ttatctgcaa gttacagctt ctgtgctttg
 780
 tcttcgcaac tacaatcca ggttctctca gcaacaacac a
 821

<210> 3034

<211> 221

<212> PRT

<213> Homo sapiens

<400> 3034

Xaa Arg Val Lys Gly Glu Asn Asp Lys Thr Asp Leu Asp Val Ile Arg
 1 5 10 15
 Glu Asn His Arg Phe Leu Trp Asn Glu Glu Asp Glu Met Asp Met Thr
 20 25 30
 Trp Glu Lys Arg Leu Ala Lys Lys Tyr Tyr Asp Lys Leu Phe Lys Glu
 35 40 45
 Tyr Cys Ile Ala Asp Leu Ser Lys Tyr Lys Glu Asn Lys Phe Gly Phe
 50 55 60
 Arg Trp Arg Val Glu Lys Glu Val Ile Ser Gly Lys Gly Gln Phe Phe
 65 70 75 80
 Cys Gly Asn Lys Tyr Cys Asp Lys Lys Glu Gly Leu Lys Ser Trp Glu

	85		90		95										
Val	Asn	Phe	Gly	Tyr	Ile	Glu	His	Gly	Glu	Lys	Arg	Asn	Ala	Leu	Val
	100							105					110		
Lys	Leu	Arg	Leu	Cys	Gln	Glu	Cys	Ser	Ile	Lys	Leu	Asn	Phe	His	His
		115					120					125			
Arg	Arg	Lys	Glu	Ile	Lys	Ser	Lys	Lys	Arg	Lys	Asp	Lys	Thr	Lys	Lys
	130					135					140				
Asp	Cys	Glu	Glu	Ser	Ser	His	Lys	Lys	Ser	Arg	Leu	Ser	Ser	Ala	Glu
	145				150					155				160	
Glu	Ala	Ser	Lys	Lys	Lys	Asp	Lys	Gly	His	Ser	Ser	Ser	Lys	Lys	Ser
		165						170					175		
Glu	Asp	Ser	Leu	Leu	Arg	Asn	Ser	Asp	Glu	Glu	Glu	Ser	Ala	Ser	Glu
	180							185				190			
Ser	Glu	Leu	Trp	Lys	Gly	Pro	Leu	Pro	Glu	Thr	Asp	Glu	Lys	Ser	Gln
	195					200					205				
Glu	Glu	Glu	Phe	Asp	Glu	Tyr	Phe	Gln	Asp	Leu	Phe	Leu			
	210					215					220				

<210> 3035

<211> 878

<212> DNA

<213> Homo sapiens

<400> 3035

ctcgagggaag atggcctcag accacaggat acctataatt cagaaacaaa gaacaaagat
60
ttgcaactcca gctctgggtt ccggaagggt gccacgcta cagattctaa cccgggagct
120
cctcagacca cgacaggggc ctcccacaca cggctcgagc aaactgtgca aggagaacca
180
caaaggatga gcaactctggc ccacccaaaa ccatggcagc cctgagggca cagactggac
240
accctgcaga gtctcactct gtcattcagg gtggagtgca atggcgcaat ctcagctcac
300
tgcaacctcc cactcccggt ctcaagcaat tctctgacc cactcagg cccagctcct
360
tcccagactg tcactctctt tctagaagga aacagggacc ctgggggtcg gggatggccc
420
tgagctccct gctgtgcccc acactggcg ggtctttgcc cacatgtgcc tagagtctgc
480
atgctctgcc ccatggctac cggctgctgc ctgcaagggt ccagagtcac gtccccagtg
540
agtctctgac ccggcgggcca gcacaccagt gtgaatcacg tgtgtcccca gtgagtctct
600
gacccggcgg ccagcgcacc agtgtgaatc acatgcgtcc ccagtgagtc tctgacccgg
660
cgaccagagc accagtgatga atcacatgcg tccccggatg gtctctcgag ggtgtccagtg
720
ctgtgccttc agggctgcca tggttttggg tgggccagag tgctcatcct tigtgtttct
780
ccttgaccaa gttctcgag ccatgtgtgg gaggccctg tcgtgggtctg aggcagctccc
840
gggttagaat ctgtaggctg ggcaccttc ggaacgc
878

<210> 3036

<211> 65

<212> PRT

<213> Homo sapiens

<400> 3036

Gly His Arg Leu Asp Thr Leu Gln Ser Leu Thr Leu Ser Phe Arg Val
 1 5 10 15
 Glu Cys Asn Gly Ala Ile Ser Ala His Cys Asn Leu Pro Leu Pro Gly
 20 25 30
 Ser Ser Asn Ser Pro Asp Pro His Ser Gly Pro Ala Pro Ser Gln Thr
 35 40 45
 Val Ile Leu Phe Leu Glu Gly Asn Arg Asp Pro Gly Gly Arg Gly Trp
 50 55 60
 Pro
 65

<210> 3037

<211> 3538

<212> DNA

<213> Homo sapiens

<400> 3037

nnctctagaaa ttaatgatga caccttagaa ttagaggggtg gagatgaagc tgaagatctt
 60
 acaaagaaac ttcttgatga acaagaacaa gaagatgagg aagccagcac tggatctcat
 120
 ctcaagctca tagtagatgc ttctctacag cagttaccca actgtgtcaa cggagatctg
 180
 atagacaagg cagcaatgga tttttgcatg aacatgaaca caaaagcaaa caggaagaag
 240
 ttgggtacggg cactcttcat agttcctaga caaagggttg atttgctacc attttatgca
 300
 agattgggtg ctacattgca tcctgcatg tctgatgtag cagaggatct ttgttccatg
 360
 ctgagggggg atttcagatt tcatgtacgg aaaaaggacc agatcaatat tgaaacaaa
 420
 aataaaaactg ttcgttttat aggagaacta actaagttta agatgttcac caaaaatgac
 480
 acatgcatt gtttaaagat gcttctgtca gacttctctc atcaccatat tgaaatggca
 540
 tgcacctgc tggagacatg tggacggttt cttttcagat ctccagaatc tcacctgagg
 600
 accagtytac ttttgagca aatgatgaga aagaagcaag caatgcattc tgatgcgaga
 660
 tacgtcacia tggtagagaa tgcattatc tactgcaacc cacctccagc tgaaaaaacc
 720
 gtgaaaaaga aacgtctctc tctccaggaa tatgtccgga aacttttgta caaggatctc
 780
 tctaaaggta ccaccgagaa ggttttgaga cagatgcgaa agctgccctg gcaggaccaa
 840
 gaagtgaag actatgttat ttgtgtatg ataacatctt ggaatgtgaa atataatagt
 900

atcattgtg tagccaacct cttagcagga ctagtgtctt accaagagga tgttggggtc
960
cacgttgttg atggagtgtt agaagatatt cgattaggaa tggagggttaa tcaacctaaa
1020
tttaatcaga ggcgcacag cagtgcaca ttcttaggag aactttacaa ttaccgaatg
1080
gtggaatcag ctgttatttt cagaactctg tattctttta cctcatttgg tgttaactct
1140
gatggctctc caagtctcct ggaccacct gagcatcttt tcagaattag actcgtatgc
1200
actattcttg acacatgttg ccagtacttt gacagagggt ccagtaaacg aaaacttgat
1260
tgtttccttg tatattttca gcgttatgtt tggtggaaga aaagtttgga ggtttgga
1320
aaagaccatc catttctat tgatatagat tacatgatca gtgatactt agaactgcta
1380
agaccaaaaga tcaactctg taattctctg gaagaatcca tcaggcagggt acaagacttg
1440
gaacgagaat tcttaataaa actaggccta gtaaatgaca aagactcaa agattttatg
1500
acagaaggag aaaatcttga agaggatgaa gaagaagaag aagggtggggc tgaaacagaa
1560
gaacaatctg gaaatgaaa tgaagtaaat gagccagaag aagaggagggt tcttgataat
1620
gatgatgatg agggagaaga agaggaggaa gagaatacag attaccttac agattccaat
1680
aaggaaaaat aaaccgatga agagaatact gaggtaatga ttaaggcggg tggacttaag
1740
catgtacctt gtgtagaaga tgaggacttc attcaagctc tggataaaaat gatgctagaa
1800
aatctacagc aacgaagtgg tgaatctgtt aaagtgcacc aactagatgt tgcattctct
1860
ttgcatctca aaagccagct gaggaaaggg cccctactgg gaggtggggg agggagggt
1920
gagtctgcag acacaatgcc gtttgtcatg ttaacaagaa agggcaataa acagcagttt
1980
aagatcttta atgtacctat gtctctctca ctgtctgcaa atcactggaa ccagcaacag
2040
gcagaacaag aagagaggat gagaatgaaa aagctcacac tagatatcaa tgaacggcaa
2100
gaacaagaag attatcaaga aatgttgcag tctcttgac agcgcaccag tccagcaaac
2160
accaatctgt agaggcgggc tcgctaccaa catccgaagg gaggacctaa tgcagatcta
2220
atctttaaga ctgggtgggag gagacgttga tccagcagca cgtgtcattt cattaggtcc
2280
tgtatctgat gttgtggtta gtggagtctt ccagcaattg aatgagagca gtggacacat
2340
ctcagcagggt cggctctagag agttgcgaat ctaaaccttg gacaggctgg ggcaggagg
2400
cagaaacacc agcctctgcc aacaccggaa caagccgacg ctccagaca aggcgaaaaa
2460
ggccttttgt aatggaatac tcgcgagggt taatcttctc ttgagaatgg cagtcaagaa
2520

atgagatgggt tcaattgact actgagcagt tacaccaagg agagcgtgaa ggggatgatt
 2580
 gagccagaga agaaacgggt tgtgatggta atgggtgtggg ggaatgaac ttgagcttta
 2640
 aacttgattt gagtttcatt gtctctgaat tgaacatccc acgttggaag aagatacatt
 2700
 tgggggctcc aggactacag tagaaaagta tagagcaagc aggaaaatct tctagtaaaa
 2760
 cttacatgca ggacaacaaa atgatgaaag atatccaaat accagataat ccaccaggaa
 2820
 ggcttttgggt taggaatttg tttcaagagg aacaagggat gaggggagaaa aatccgtttt
 2880
 atccatcaga gtcagtgcta taaaattgcc tattaaggta aaagaaaaat gtggagacta
 2940
 ttttactata cagagagcat taattcagat ggcttagaaa agtgatacca cccaagaac
 3000
 agggatctag gtgagcccat tgaagtatc attgaaaaa aaacatgccc gtcaacatgt
 3060
 cacagaaaac gaacgaagga caacaagaag tggatgagaa tattttgttg accttcatgg
 3120
 gtttacagcc tctgtctcta aacaaagtat ggaacaagt agagctttta ttttgctttt
 3180
 gttttgtttt tgtttttttt tgttttcccc cactaaatag aaatgaggggt ccttagtctg
 3240
 tttctgacaa tctgttaatt tcttaggaca gctgtctttg gtttgctttc cagcaggcgt
 3300
 agtatattta gtccgagagc acatctgtat gcgacaactt gattacatct ttttttctag
 3360
 ctattttgca ttttttcttt taccatgttt cagtttctgc atgtagattt aaataaaaaa
 3420
 caaaacttgt aaagtgtgaa cattttcacat ggaaatgctg cccaatcttc accagcttca
 3480
 gaaatctgac ctttgccgat gctgcaataa agtgttgtaa tttaaaaaaa aaaaaaaa
 3538

<210> 3038

<211> 697

<212> PRT

<213> Homo sapiens

<400> 3038

Pro Asn Cys Val Asn Arg Asp Leu Ile Asp Lys Ala Ala Met Asp Phe
 1 5 10 15
 Cys Met Asn Met Asn Thr Lys Ala Asn Arg Lys Lys Leu Val Arg Ala
 20 25 30
 Leu Phe Ile Val Pro Arg Gln Arg Leu Asp Leu Leu Phe Tyr Ala
 35 40 45
 Arg Leu Val Ala Thr Leu His Pro Cys Met Ser Asp Val Ala Glu Asp
 50 55 60
 Leu Cys Ser Met Leu Arg Gly Asp Phe Arg Phe His Val Arg Lys Lys
 65 70 75 80
 Asp Gln Ile Asn Ile Glu Thr Lys Asn Lys Thr Val Arg Phe Ile Gly
 85 90 95
 Glu Leu Thr Lys Phe Lys Met Phe Thr Lys Asn Asp Thr Leu His Cys

```

100      105      110
Leu Lys Met Leu Leu Ser Asp Phe Ser His His His Ile Glu Met Ala
115      120      125
Cys Thr Leu Leu Glu Thr Cys Gly Arg Phe Leu Phe Arg Ser Pro Glu
130      135      140
Ser His Leu Arg Thr Ser Val Leu Leu Glu Gln Met Met Arg Lys Lys
145      150      155      160
Gln Ala Met His Leu Asp Ala Arg Tyr Val Thr Met Val Glu Asn Ala
165      170      175
Tyr Tyr Tyr Cys Asn Pro Pro Pro Ala Glu Lys Thr Val Lys Lys Lys
180      185      190
Arg Pro Pro Leu Gln Glu Tyr Val Arg Lys Leu Leu Tyr Lys Asp Leu
195      200      205
Ser Lys Val Thr Thr Glu Lys Val Leu Arg Gln Met Arg Lys Leu Pro
210      215      220
Trp Gln Asp Gln Glu Val Lys Asp Tyr Val Ile Cys Cys Met Ile Asn
225      230      235      240
Ile Trp Asn Val Lys Tyr Asn Ser Ile His Cys Val Ala Asn Leu Leu
245      250      255
Ala Gly Leu Val Leu Tyr Gln Glu Asp Val Gly Ile His Val Val Asp
260      265      270
Gly Val Leu Glu Asp Ile Arg Leu Gly Met Glu Val Asn Gln Pro Lys
275      280      285
Phe Asn Gln Arg Arg Ile Ser Ser Ala Lys Phe Leu Gly Glu Leu Tyr
290      295      300
Asn Tyr Arg Met Val Glu Ser Ala Val Ile Phe Arg Thr Leu Tyr Ser
305      310      315      320
Phe Thr Ser Phe Gly Val Asn Pro Asp Gly Ser Pro Ser Ser Leu Asp
325      330      335
Pro Pro Glu His Leu Phe Arg Ile Arg Leu Val Cys Thr Ile Leu Asp
340      345      350
Thr Cys Gly Gln Tyr Phe Asp Arg Gly Ser Ser Lys Arg Lys Leu Asp
355      360      365
Cys Phe Leu Val Tyr Phe Gln Arg Tyr Val Trp Trp Lys Lys Ser Leu
370      375      380
Glu Val Trp Thr Lys Asp His Pro Phe Pro Ile Asp Ile Asp Tyr Met
385      390      395      400
Ile Ser Asp Thr Leu Glu Leu Leu Arg Pro Lys Ile Lys Leu Cys Asn
405      410      415
Ser Leu Glu Glu Ser Ile Arg Gln Val Gln Asp Leu Glu Arg Glu Phe
420      425      430
Leu Ile Lys Leu Gly Leu Val Asn Asp Lys Asp Ser Lys Asp Phe Met
435      440      445
Thr Glu Gly Glu Asn Leu Glu Glu Asp Glu Glu Glu Glu Gly Gly
450      455      460
Ala Glu Thr Glu Glu Gln Ser Gly Asn Glu Ser Glu Val Asn Glu Pro
465      470      475      480
Glu Glu Glu Glu Gly Ser Asp Asn Asp Asp Asp Glu Gly Glu Glu Glu
485      490      495
Glu Glu Glu Asn Thr Asp Tyr Leu Thr Asp Ser Asn Lys Glu Asn Glu
500      505      510
Thr Asp Glu Glu Asn Thr Glu Val Met Ile Lys Gly Gly Glu Lys Lys
515      520      525
His Val Pro Cys Val Glu Asp Glu Asp Phe Ile Gln Ala Leu Asp Lys

```

```

      530              535              540
Met Met Leu Glu Asn Leu Gln Gln Arg Ser Gly Glu Ser Val Lys Val
545              550              555              560
His Gln Leu Asp Val Ala Ile Pro Leu His Leu Lys Ser Gln Leu Arg
      565              570              575
Lys Gly Pro Pro Leu Gly Gly Gly Glu Gly Glu Ala Glu Ser Ala Asp
      580              585              590
Thr Met Pro Phe Val Met Leu Thr Arg Lys Gly Asn Lys Gln Gln Phe
      595              600              605
Lys Ile Leu Asn Val Pro Met Ser Ser Gln Leu Ala Ala Asn His Trp
      610              615              620
Asn Gln Gln Gln Ala Glu Gln Glu Glu Arg Met Arg Met Lys Lys Leu
625              630              635              640
Thr Leu Asp Ile Asn Glu Arg Gln Glu Gln Glu Asp Tyr Gln Glu Met
      645              650              655
Leu Gln Ser Leu Ala Gln Arg Pro Ala Pro Ala Asn Thr Asn Arg Glu
      660              665              670
Arg Arg Pro Arg Tyr Gln His Pro Lys Gly Ala Pro Asn Ala Asp Leu
      675              680              685
Ile Phe Lys Thr Gly Gly Arg Arg Arg
      690              695

<210> 3039
<211> 1836
<212> DNA
<213> Homo sapiens

<400> 3039
nnnttttttat gtggacttct ttttaacatt tattaaaaaa gcaaatgta tgttcatctc
60
aaatcctaaca gttaaaaaat ggtaagcaa tacaaacaat gtgttactag cagcatccag
120
tcgttagaat ctctcaccct gcttctcggt ctgatctgtg caagctcagt ctcttctgag
180
cctgcagcta cctccatccc tcatacgtagt gcaggccaaa ccaaatttta taaaattaac
240
aatttaagggt taaataagct taaataaggg tgtaaataac aagacacttc atcaaaagctt
300
ctgtacaaag ataacaatat ctggcattgt acaagtgggt ccgctggctc acagcacaca
360
gggaagtctt agtgaagtaag cagattcact ctcatctctt tccagcagag caactataca
420
aaagtgaact aagagttgaa gtgactactg accactcggt gagccattta caaggcatat
480
gtatcttttt tttgttttta atcagaacac tgtaatatatt caggcaccat ttgttctctc
540
aaataaataa gtctctaagg taactgcac tgaactagtg ttaaacacaa cagtgccttt
600
tttttttttt aatcccccca caaagctttt ccaactatgt actatgcctc ctttcttatt
660
gctatggtaa tgtggctgtg gaaataaaaa tactgtacat ccaaaaaaat agagcacctt
720
taacattaaa gtatatgtct gattatttgt tctcatgttt attttacaat actaaagccc
780

```

aaactatggt aaattgcttt acatctctac caggtcacct gatatacagg aaataaaact
 840
 caactatctt cctctctgag gtaagcccaa gccagagcac tgttttagca gagtctaaaa
 900
 gaaaaaggtc tcaactgtcg ccagggttta cattcatctt cacaccagga gttacattca
 960
 ttcatcttca catcggcgct gctctctgcc gtggttaccg agaaagagtc gaggtccct
 1020
 atcctgctgt ggtgaatggt gctacacaga atggaacagc aaaaacatct acgattgggt
 1080
 gaaagcacac agaaaaacca catgtttgtg acttcaaagg gacaaggggc atttcccagt
 1140
 ggtcccttga tgaggtgctg attggctaag attttttgtc gatggtgggtg aaaaaccatt
 1200
 ctgtgaattt ccgcagctga gctgtcgcgg tctgggactc ctctgcagc ctcattgtgt
 1260
 cctgtctcag gtgctgcaact tctgcttgga gaacggcctt gtcttgtttt tctctccgaa
 1320
 ggtcggtctg gagttgtcga agaattaatt ccagctgatt gactttcccg gtcagtgggt
 1380
 atggagaacg ctccccagtt ggtccatga actctttgcc actgcttgga tctacacata
 1440
 agggcagctc tgatgccctt ccgggacaca gccacagggt tagattggac ccacctcggt
 1500
 gatgctgcac gggcatttga agaccagagg gtggcatcct tctgcacct gacagatatg
 1560
 cagcatgggc aggacctgga agggggccaa gagctgcctt tatgtgtaga tccaggcagt
 1620
 ggcaaaagat tcatggacac aactggggag cgttctccat caccactgac cgggaaagtc
 1680
 aatcagctgg aattaattct tcgacaactc cagaccgacc ttcggaagga aaaacaagac
 1740
 aaggccggtc tccaagcaga agtgacgac ctgagacagg acaacatgag gctgcaggaa
 1800
 gagtcccaga ccgcgacagc tcagctgctg aaattg
 1836

<210> 3040

<211> 142

<212> FRT

<213> Homo sapiens

<400> 3040

Thr Leu Cys His Cys Leu Asp Leu His Ile Arg Ala Ala Leu Met Pro
 1 5 10 15
 Leu Pro Asp Thr Ala Thr Gly Leu Asp Trp Thr His Leu Val Asp Ala
 20 25 30
 Ala Arg Ala Phe Glu Asp Gln Arg Val Ala Ser Phe Cys Thr Leu Thr
 35 40 45
 Asp Met Gln His Gly Gln Asp Leu Glu Gly Ala Gln Glu Leu Pro Leu
 50 55 60
 Cys Val Asp Pro Gly Ser Gly Lys Glu Phe Met Asp Thr Thr Gly Glu
 65 70 75 80
 Arg Ser Pro Ser Pro Leu Thr Gly Lys Val Asn Gln Leu Glu Leu Ile

	85		90		95
Leu Arg Gln	Leu Gln Thr Asp	Leu Arg Lys	Glu Lys Gln	Asp Lys Ala	
	100		105		110
Gly Leu Gln	Ala Glu Val Gln His	Leu Arg Gln	Asp Asn Met	Arg Leu	
	115		120		125
Gln Glu Glu	Ser Gln Thr Ala Thr	Ala Gln Leu	Arg Lys Leu		
	130		135		140

<210> 3041
 <211> 1512
 <212> DNA
 <213> Homo sapiens

<400> 3041
 ncacgaggag ccagagtctg tcaggcgggt tggatgaagg cgcgggggcg ggcacggcgt
 60
 tgggagtgcg cggcaggagc cggccaggcg ggctgcaggc acctcagagc cggggacacc
 120
 ccctcaacgt ccgacggcgc gatgaaggca ctgatcttag tggggggcta tgggacgcgg
 180
 ctacggccgc tgacgtgag caccocgaag cactgggtgg acttctgcaa taagcccatc
 240
 ttgctgcacc aagtggaggc gctagccgcy gcaggcgtgg accacgtgat cctggcgtg
 300
 agctacatgt cgcagggtgt ggagaaggaa atgaaggcac aggagcagag gctgggaatc
 360
 cgaatctcca tgtcccatga agaggagcct ttggggacag ctgggcccct ggcgtggcc
 420
 cgtgacctac tctctgagac tgcagacctt ttcttcgtcc tcaacagtga cgtgatctgc
 480
 gatttccctt tccaagccat ggtgcagttc caccggcac atggccagga gggctccatc
 540
 ctggtgacca aggtggagga accctccaag tacggtgtgg tgggtgtgta ggctgacaca
 600
 ggccgcattc accggttcgt ggagaaggca cagggtgttg tgtccaataa gatcaacgca
 660
 ggcatgtaca tcttgagccc tgcagtgtgt cggcgcatcc agctgcagcc tacgtccatt
 720
 gagaaggagg tcttcccat tatggccaag gaggggcagc tatatgcat ggagttacag
 780
 ggcttctgga tggacattgg gcagcccaag gacttctca ctggcatgtg cctcttctg
 840
 cagtactga ggcagaagca gcctgagcgg ctgtgtctag gccctggcat tgtgggcaac
 900
 gtgctggtgg acccaagtgc ccgcatcgcc cagaactgca gcattggccc caatgtgagc
 960
 ctgggacctg gcgtggtggt cgaagatggt gtgtgtatcc ggcggtgcac ggtgctgcgg
 1020
 gatgcccgga tccgttccca ttctgtgott gagtctctgca ttgtgggctg gcgctgcgcg
 1080
 gtgggtcagt gggtagcat ggagaacgtg acagtgtctg gtgaggacgt catagttaat
 1140
 gatgagctct acctcaacgg agccagcgtg ctgccccaca agtctattgg cgagtcagtg
 1200

ccagagcctc gtatcatcat gtgaggggat gcagtggggc tggccgagcc cccgttttcc
 1260
 catcagcaag gggagtgtctg gcctgacaca tcagaagacc ctggacttgt cattatttgt
 1320
 ctgggggggca ctgggtgaag ctgaagctgt tggacacctg ccttctcatg tggacatcat
 1380
 ctggcaggat cctctgtggg cacacccac aaacccact ccctcaagaa gggccagggc
 1440
 cagggctgtg tggaataata attaatgct cactgtgaaa aaaaaaaaaa aaaaaaaaaa
 1500
 aaaaaaaaaa aa
 1512

<210> 3042

<211> 360

<212> PRT

<213> Homo sapiens

<400> 3042

Met Lys Ala Leu Ile Leu Val Gly Gly Tyr Gly Thr Arg Leu Arg Pro
 1 5 10 15
 Leu Thr Leu Ser Thr Pro Lys Pro Leu Val Asp Phe Cys Asn Lys Pro
 20 25 30
 Ile Leu Leu His Gln Val Glu Ala Leu Ala Ala Gly Val Asp His
 35 40 45
 Val Ile Leu Ala Val Ser Tyr Met Ser Gln Val Leu Glu Lys Glu Met
 50 55 60
 Lys Ala Gln Glu Gln Arg Leu Gly Ile Arg, Ile Ser Met Ser His Glu
 65 70 75 80
 Glu Glu Pro Leu Gly Thr Ala Gly Pro Leu Ala Leu Ala Arg Asp Leu
 85 90 95
 Leu Ser Glu Thr Ala Asp Pro Phe Phe Val Leu Asn Ser Asp Val Ile
 100 105 110
 Cys Asp Phe Pro Phe Gln Ala Met Val Gln Phe His Arg His His Gly
 115 120 125
 Gln Glu Gly Ser Ile Leu Val Thr Lys Val Glu Glu Pro Ser Lys Tyr
 130 135 140
 Gly Val Val Val Cys Glu Ala Asp Thr Gly Arg Ile His Arg Phe Val
 145 150 155 160
 Glu Lys Pro Gln Val Phe Val Ser Asn Lys Ile Asn Ala Gly Met Tyr
 165 170 175
 Ile Leu Ser Pro Ala Val Leu Arg Arg Ile Gln Leu Gln Pro Thr Ser
 180 185 190
 Ile Glu Lys Glu Val Phe Pro Ile Met Ala Lys Glu Gly Gln Leu Tyr
 195 200 205
 Ala Met Glu Leu Gln Gly Phe Trp Met Asp Ile Gly Gln Pro Lys Asp
 210 215 220
 Phe Leu Thr Gly Met Cys Leu Phe Leu Gln Ser Leu Arg Gln Lys Gln
 225 230 235 240
 Pro Glu Arg Leu Cys Ser Gly Pro Gly Ile Val Gly Asn Val Leu Val
 245 250 255
 Asp Pro Ser Ala Arg Ile Gly Gln Asn Cys Ser Ile Gly Pro Asn Val
 260 265 270
 Ser Leu Gly Pro Gly Val Val Val Glu Asp Gly Val Cys Ile Arg Arg

```

                275                280                285
Cys Thr Val Leu Arg Asp Ala Arg Ile Arg Ser His Ser Trp Leu Glu
   290                295                300
Ser Cys Ile Val Gly Trp Arg Cys Arg Val Gly Gln Trp Val Arg Met
   305                310                315                320
Glu Asn Val Thr Val Leu Gly Glu Asp Val Ile Val Asn Asp Glu Leu
                325                330                335
Tyr Leu Asn Gly Ala Ser Val Leu Pro His Lys Ser Ile Gly Glu Ser
   340                345                350
Val Pro Glu Pro Arg Ile Ile Met
   355                360

```

<210> 3043

<211> 394

<212> DNA

<213> Homo sapiens

<400> 3043

```

agatctcctt ggatctggag gccctggcctt tcagccagag gcagggggag aaagatgatg
60
ttctcatgatg ccagcgttc ctcttcaactg gcgtctgacc caggagcagt ccagaatcag
120
cttctctgac ctcaactcaa ctcaactgtgc ttgacactt taagggacct cctgtttttg
180
ggtctttctg ctgggtgtca ttgaatgggc agtgattctc taactttaga ctgatgttcc
240
ccagcctttg ttgggggact cggaggcaga gtacacagt acccttacc ctgggttggg
300
gagggtcata ttctcgttat cccagaggg tcaacagggg cttcattttt ctgaggggact
360
agagggtcct gtggagctcc tgggacagag atct
394

```

<210> 3044

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3044

```

Met Lys Pro Leu Leu Thr Ser Trp Gly Tyr Gln Glu Tyr Asp Pro Pro
   1                5                10                15
Gln Pro Arg Gly Lys Gly Asn Cys Leu Leu Cys Leu Arg Val Pro Lys
   20                25                30
Gln Arg Leu Gly Asn Ile Ser Leu Lys Leu Glu Asn His Cys Pro Phe
   35                40                45
Asn Asp Thr Gln Pro Glu Asp Pro Lys Thr Gly Ser Pro Leu Lys Cys
   50                55                60
Gln Arg His Val Ser Trp Ser Glu Val Arg Glu Ala Asp Ser Gly Leu
   65                70                75                80
Leu Leu Gly Gln Thr Pro Val Lys Arg Lys Arg Trp His His Glu Thr
   85                90                95
Ser Ser Phe Ser Pro Cys Leu Trp Leu Lys Ala Arg Ala Ser Arg Ser
  100                105                110
Lys Glu Ile

```

115

<210> 3045

<211> 605

<212> DNA

<213> Homo sapiens

<400> 3045

```

nnggatcctt gtcgtagtct tgcaggagaa aattgctgcc ttgatagct gtactttcac
60
gaagaaattc tttgttatac gctgctatcc atgtccaggg ccaaacatga atcctattgc
120
tcttggggagc cgctgggcttg cttatgcaga aaacaagttg attcgatgct atcagtcctg
180
tggtggagcc tgtggagaca acattcagtc ttatactgcc acagtcatta gtgctgctaa
240
aacattgaaa agtggcctga caatggtagg gaaagtgggtg actcagctga caggcacact
300
gccttcagggt gtgacagaag atgatgttgc catccacagt aattcacggc ggagtccttt
360
ggtcccaggc atcatcacag ttattgacac cgaaaccgtg gagagggccg ggtgtttgtg
420
agtgaggatc ttgacagtga tggcattgtg gcccaattcc ctgccatga gaagccagtg
480
tgctgcattg ctttttaatac aagtgggaatg cttctagtca caacagacac ccttgcccat
540
gactttcatg tcttccaaat tctgactcat ccttggtcct catctacgga gagacgacaa
600
cgcgt
605

```

<210> 3046

<211> 72

<212> PRT

<213> Homo sapiens

<400> 3046

```

His Arg Asn Arg Gly Glu Gly Gln Val Phe Val Ser Glu Asp Leu Asp
1          5          10          15
Ser Asp Gly Ile Val Ala His Phe Pro Ala His Glu Lys Pro Val Cys
20          25          30
Cys Met Ala Phe Asn Thr Ser Gly Met Leu Leu Val Thr Thr Asp Thr
35          40          45
Leu Gly His Asp Phe His Val Phe Gln Ile Leu Thr His Pro Trp Ser
50          55          60
Ser Ser Thr Glu Arg Arg Gln Arg
65          70

```

<210> 3047

<211> 391

<212> DNA

<213> Homo sapiens

<400> 3047

attttggagg agaggaagaa tgaatgacc caagtcatta cccgaaccca agaggagaaa
 60
 ctggaacatg tccgtgctct gatcaaaaag tattctgacg atttggagaa cgtctcaaa
 120
 ttggttgagt caggaattca gtttatggat gagccagaaa tggcagtggt tctgcagaat
 180
 gccaaaaacc tgctaaaaaa aatctcggaa gcatcaagg catttcagat ggagaaaaata
 240
 gaacatggct atgagaacat gaaccacttc acagtcaacc tcaatagaga agaaaagata
 300
 atacgtgaaa ttgactttta cagagaagat gaagatgaag aagaagaaga aggcggagaa
 360
 ggagaaaaag aagagaagga gaagtgggag a
 391

<210> 3048

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3048

Met Thr Gln Val Ile Thr Arg Thr Gln Glu Glu Lys Leu Glu His Val
 1 5 10 15
 Arg Ala Leu Ile Lys Lys Tyr Ser Asp His Leu Glu Asn Val Ser Lys
 20 25 30
 Leu Val Glu Ser Gly Ile Gln Phe Met Asp Glu Pro Glu Met Ala Val
 35 40 45
 Phe Leu Gln Asn Ala Lys Thr Leu Leu Lys Lys Ile Ser Glu Ala Ser
 50 55 60
 Lys Ala Phe Gln Met Glu Lys Ile Glu His Gly Tyr Glu Asn Met Asn
 65 70 75 80
 His Phe Thr Val Asn Leu Asn Arg Glu Glu Lys Ile Ile Arg Glu Ile
 85 90 95
 Asp Phe Tyr Arg Glu Asp Glu Asp Glu Glu Glu Glu Gly Gly Glu
 100 105 110
 Gly Glu Lys Glu Glu Lys Glu Lys Trp Glu
 115 120

<210> 3049

<211> 599

<212> DNA

<213> Homo sapiens

<400> 3049

ngttgtcctc ctcaccttca cccaaatctt taattcacgg agctgcatcc ccttctttgg
 60
 ttctcagatgt tctctggttcg ccgggacagc agctcgaagc agctggtgct ctgtgtccac
 120
 ttctctcttc tgaacgaaag ctccggcogag gtgctcgaat acaccattaa ggaagaaaa
 180
 tcgatattgt acctggaagg ctccggtctct gtgtttgagg acatcttcag attgattggc
 240
 ttctactgtg tcagtagaga ctactgcc ttcacactgc ggctacccca ggccactcct
 300

gaggccagca gcttcacgga ccttgagacc atcgccaacc tgggtctggg tttctgggac
 360
 tcctcgtcta atcctccaca agaaagaggg aagccagcag agcccccaag agaccgggac
 420
 cccggattcc ccctagtctc cagcctcagg cccacagccc atgacgcaaa ctgtgcctgt
 480
 gaaatcgagc tgtcggtagg aaatgaccgc ctgtgggttg tgaatcctat tttcatcgag
 540
 gactgcagca gcgcctgcc caccgaccag ccacctcttg gaaattgccc ttcaagcgt
 599

<210> 3050

<211> 177

<212> FRT

<213> Homo sapiens

<400> 3050

Met	Phe	Leu	Val	Arg	Asp	Ser	Ser	Ser	Lys	Gln	Leu	Val	Leu	Cys
1				5				10					15	
Val	His	Phe	Pro	Ser	Leu	Asn	Glu	Ser	Ser	Ala	Glu	Val	Leu	Tyr
			20				25					30		
Thr	Ile	Lys	Glu	Glu	Lys	Ser	Ile	Leu	Tyr	Leu	Glu	Gly	Ser	Ala
		35				40					45			
Val	Phe	Glu	Asp	Ile	Phe	Arg	Leu	Ile	Ala	Phe	Tyr	Cys	Val	Ser
	50				55				60					
Asp	Leu	Leu	Pro	Phe	Thr	Leu	Arg	Leu	Pro	Gln	Ala	Ile	Leu	Glu
65					70				75				80	
Ser	Ser	Phe	Thr	Asp	Leu	Glu	Thr	Ile	Ala	Asn	Leu	Gly	Leu	Gly
			85					90					95	
Trp	Asp	Ser	Ser	Leu	Asn	Pro	Pro	Gln	Glu	Arg	Gly	Lys	Pro	Ala
			100					105					110	
Pro	Pro	Arg	Asp	Arg	Ala	Pro	Gly	Phe	Pro	Leu	Val	Ser	Ser	Leu
		115				120					125			
Pro	Thr	Ala	His	Asp	Ala	Asn	Cys	Ala	Cys	Glu	Ile	Glu	Leu	Ser
	130					135					140			
Gly	Asn	Asp	Arg	Leu	Trp	Phe	Val	Asn	Pro	Ile	Phe	Ile	Glu	Asp
145				150					155				160	
Ser	Ser	Ala	Leu	Pro	Thr	Asp	Gln	Pro	Pro	Leu	Gly	Asn	Cys	Pro
			165					170					175	

Arg

<210> 3051

<211> 820

<212> DNA

<213> Homo sapiens

<400> 3051

nattcgccac gacggcatca agtctgggaa gaaacccacc cagagggctt cgctgatcat
 60
 agacgatgga aacattgcca gtgaagacag ctccctctca gatgcccttg ttcttgagga
 120
 tgaagactct caggttacca gcacaatata cccctacat tctcctcaca agggactccc
 180

tctctggcca cctgtgcaca acaggcctcc tctctcccag tccctggagg gactccgaca
 240
 gatgcactat caccgnaaac gactatgaca agtcacccat caagcccaaa atgtggagtg
 300
 agtctctctt agatgaaccc tatgagaagg tcaagaagcg ctctctctcac agccattcca
 360
 gcagccacaa gogcttcccc agcacaggaa gctgtgcgga agcggcgga ggaagcaact
 420
 ccttgacaaa cagcccccac cgcggcctcc cgcactggaa ctcccagtc agcatgccgt
 480
 ccacgccaga cctgcggggtc cggagtcctcc actacgtcca ttccacaggg tcggtggaca
 540
 tcagcccccac cagactgcac agcctcgcac tgcacttttag gcaccggagc tccagcctgg
 600
 agtcccaggg caagctcctg ggctcggaaa acgacaccgg gagccccgac ttctacaccc
 660
 cgcggactcg tagcagcaac ggctcagacc ccatggacga ctgctcgtcg tgcaccagcc
 720
 actcagctc ggagcactac taccggcgcg agatgaacgc caactactcc acgctggcgcg
 780
 aggaactgcc gtccaaggcg cggctgcatg gatattcgac
 820

<210> 3052

<211> 62

<212> PRT

<213> Homo sapiens

<400> 3052

Arg	Leu	Ser	Gly	Tyr	Gln	His	Asn	Ile	Pro	Pro	Thr	Phe	Ser	Ser	Gln
1				5				10					15		
Gly	Thr	Pro	Ser	Ser	Ala	Thr	Val	Ala	Gln	Gln	Ala	Ser	Ser	Ser	Pro
		20					25					30			
Val	Pro	Gly	Gly	Thr	Pro	Thr	Asp	Ala	Leu	Ser	Pro	Xaa	Thr	Thr	Met
		35					40					45			
Thr	Ser	His	Pro	Ser	Ser	Pro	Lys	Cys	Gly	Val	Ser	Pro	Leu		
	50					55				60					

<210> 3053

<211> 2625

<212> DNA

<213> Homo sapiens

<400> 3053

agtggctgnt cagaacatac atctntcatg cttctattgt ctaccaaga gaagccagaa
 60
 gagcctccga catctaatag atgcttagaa gatataaccg taaaagatgg actttctctc
 120
 cagtttaaaa gatttagaga aactgtacca acttgggata caataagaga tgaagaagat
 180
 gttcttgatg agctcttgca gtatttgggt gttactagtc ctgaatgctt acagagaact
 240
 ggaatctcac ttaatatctc tgctccacaa cctgtgtgca tttctgaaaa acaagaaaat
 300

gatgttatta atgctatcct taagcaacat acagaagaaa agaatttgt tgagaagcac
360
tttaattgact taaacatgaa agctgtggaa caagatgaac caatacctca aaaacctcag
420
tcagcatttt attattgcag attgcttctt agtatattgg gaatgaattc ctgggacaaa
480
cggaggagct ttcattctct gaagaaaaat gaaaagctac ttagagaact taggaacttg
540
gattcaaggc agtgccgaga gacacacaag attgcagtat tttatgttgc tgaaggacaa
600
gaagacaaac actccattct caccaataca ggagggaagt aagcatatga agattttgtta
660
gctggtcttg gttgggaggt aaactctaca aaccattgtg gttttatggg aggactacaa
720
aaaaacaaaa gcactggatt gacctctcca tattttgcta cctctacagt agaggtaata
780
tttcacgtgt caacaagaat gccttctgat tctgatgatt ctttgaccaa aaaattgaga
840
catttgggaa atgatgaagt gcacattgtt tggtcagagc atactagaga ctacaggaga
900
ggaattattc ccacagaatt tgggtgatgc cttattgtta tatatccaat gaaaaatcac
960
atgttcagta ttcagataat gaaaaaacca gaggttccct tctttggtcc cctttttgat
1020
gggtgtattg tgaattgaaa gggtctaccc attatggta gagcaacagc tataaatgca
1080
agccgtgtct tgaaatctct gattccattg tatcaaaact tctatgagga gagagcacga
1140
tacctgcaaa caattgtcca gcaccactta gaaccaacaa catttgaaaga ttttgagca
1200
cagggttttt ctccagctcc ctaccacat ttaccatctg atgccgatca ttaaatatca
1260
gttctgttta tctgaaggct cctaccaga gattctaccc agtgaaactc ccacagcaac
1320
gcaggtagat ggggctgacc tggcctctcc aatgtctctc cgaactagca aaagccgcat
1380
gtccatgaag ctgcgtcgtt cctctggctc agccaataaa tctaaggag acaagcagcc
1440
cagcagtgat cagcagtagc caccttagca cgaacatagg gttaaccctt tcaggccttc
1500
atgtctgcc aataatgcat gtttcttctc gtacatttat ttgagaaaac actggattta
1560
aataatttta aataatttgt agcttaatat taaagattta agttatttat tgtttcattt
1620
tttttccac aatccaagct gccatatttt gagggcaggg ggagttttat tctacacct
1680
ttaccttct agataattat gtctaagtag ttttatcttt aatttcatgg ttaactgtga
1740
gccaaaat ac aattggacaa ttagtctcat tatttatgtt gccccattgc aactttatgg
1800
ttcaataaat atataatttt ttacaaatgt aaaattttac atttaagcat ttgtaaagtt
1860
acagcaaaag atgtacctgt taatacacag aatgtgtaca gattatttgt tatgacaata
1920

aaacactcaa aataaatgggt ctttagcattc tcaaatcca actgaaatca ttttagtatt
 1980
 aactcttctt cccaaagcaa tgtctcattt cttggctgtg caggtgatgc catgttatac
 2040
 ccaataacta gaaaaatcac tgtgctgaac ttttatgttt agcttccaag tatttttcta
 2100
 atgttttgca tttcaagtgg tatcactggt aaatgccatt tgttttcaga ttgtggcctt
 2160
 ttattattgg ctgctagatc ctgggtgttc tatgttcttt ttttaagcacc aaaaagaaga
 2220
 tggggagaaa aagaaggaaa attttctgat ataaatatgt tgttcaaatt atgagtatta
 2280
 tttaaaaaag aaaaaggaaac ataaccagg agtctaagtt aaatctaata ttgttaatac
 2340
 tgaacttgca ggtccaggtt ggtatacatt ccacctctta gaagtatttt cttacagtag
 2400
 ataaactgct cacattttgt ttgtaatggg catctctga ggaatgtag catgacattg
 2460
 gtactaactg catgtgtaaa tacatcatac tggcaaacgg taaaatataa attatgtatc
 2520
 atcattcatg tagtatctat aatttgtaac agtggggggg aaagatgaca tggattttaa
 2580
 taatacataa aaaatattct tatcacttcc taaaaaaaaa aaaaa
 2625

<210> 3054

<211> 417

<212> PRT

<213> Homo sapiens

<400> 3054

Ser	Gly	Xaa	Ser	Glu	His	Thr	Ser	Xaa	Met	Leu	Ser	Leu	Ser	His	Gln
1			5					10				15			
Glu	Lys	Pro	Glu	Glu	Pro	Pro	Thr	Ser	Asn	Glu	Cys	Leu	Glu	Asp	Ile
		20						25				30			
Thr	Val	Lys	Asp	Gly	Leu	Ser	Leu	Gln	Phe	Lys	Arg	Phe	Arg	Glu	Thr
		35					40					45			
Val	Pro	Thr	Trp	Asp	Thr	Ile	Arg	Asp	Glu	Glu	Asp	Val	Leu	Asp	Glu
		50				55					60				
Leu	Leu	Gln	Tyr	Leu	Gly	Val	Thr	Ser	Pro	Glu	Cys	Leu	Gln	Arg	Thr
		65			70					75				80	
Gly	Ile	Ser	Leu	Asn	Ile	Pro	Ala	Pro	Gln	Pro	Val	Cys	Ile	Ser	Glu
			85					90						95	
Lys	Gln	Glu	Asn	Asp	Val	Ile	Asn	Ala	Ile	Leu	Lys	Gln	His	Thr	Glu
		100					105					110			
Glu	Lys	Glu	Phe	Val	Glu	Lys	His	Phe	Asn	Asp	Leu	Asn	Met	Lys	Ala
		115				120						125			
Val	Glu	Gln	Asp	Glu	Pro	Ile	Pro	Gln	Lys	Pro	Gln	Ser	Ala	Phe	Tyr
		130				135					140				
Tyr	Cys	Arg	Leu	Leu	Leu	Ser	Ile	Leu	Gly	Met	Asn	Ser	Trp	Asp	Lys
		145			150					155				160	
Arg	Arg	Ser	Phe	His	Leu	Leu	Lys	Lys	Asn	Glu	Lys	Leu	Leu	Arg	Glu
			165						170					175	
Leu	Arg	Asn	Leu	Asp	Ser	Arg	Gln	Cys	Arg	Glu	Thr	His	Lys	Ile	Ala


```

180      185      190
Val Phe Tyr Val Ala Glu Gly Gln Glu Asp Lys His Ser Ile Leu Thr
195      200      205
Asn Thr Gly Gly Ser Gln Ala Tyr Glu Asp Phe Val Ala Gly Leu Gly
210      215      220
Trp Glu Val Asn Leu Thr Asn His Cys Gly Phe Met Gly Gly Leu Gln
225      230      235      240
Lys Asn Lys Ser Thr Gly Leu Thr Thr Pro Tyr Phe Ala Thr Ser Thr
245      250      255
Val Glu Val Ile Phe His Val Ser Thr Arg Met Pro Ser Asp Ser Asp
260      265      270
Asp Ser Leu Thr Lys Lys Leu Arg His Leu Gly Asn Asp Glu Val His
275      280      285
Ile Val Trp Ser Glu His Thr Arg Asp Tyr Arg Arg Gly Ile Ile Pro
290      295      300
Thr Glu Phe Gly Asp Val Leu Ile Val Ile Tyr Pro Met Lys Asn His
305      310      315      320
Met Phe Ser Ile Gln Ile Met Lys Lys Pro Glu Val Pro Phe Phe Gly
325      330      335
Pro Leu Phe Asp Gly Ala Ile Val Asn Gly Lys Val Leu Pro Ile Met
340      345      350
Val Arg Ala Thr Ala Ile Asn Ala Ser Arg Ala Leu Lys Ser Leu Ile
355      360      365
Pro Leu Tyr Gln Asn Phe Tyr Glu Arg Ala Arg Tyr Leu Gln Thr
370      375      380
Ile Val Gln His His Leu Glu Pro Thr Thr Phe Glu Asp Phe Ala Ala
385      390      395      400
Gln Val Phe Ser Pro Ala Pro Tyr His His Leu Pro Ser Asp Ala Asp
405      410      415
His

```

<210> 3055

<211> 905

<212> DNA

<213> Homo sapiens

<400> 3055

```

tgtacaggcc cgagctgtgt tctacccctt cttaggggtg ggaggagctg tgaacatgtc
60
ctatcgaacc ctctacatcg ggacaggagc tgacatggat gtgtgcctta caaactatgg
120
tcactgtaac tacgtgtccg ggaacatgc ctgcatactc tacgatgaga ataccaaaaca
180
ttatgagctg ttaaaactaca gtgagcatgg gacaacgggt gacaatgtgc tgtattcatg
240
tgacttctcg gagaagaccc cgccaacccc cccaagcagt attgttgcca aagtgcagag
300
tgtcatcagg cgccgcggcg accgaaacaa ggacgaagag ccaagtgagg aggcagccat
360
gatgagttcc caggcccagg ggccgcagcg gagacccctg aattgc aaag ccagcagctc
420
gagcttgatt gggggcagtg gggccggctg ggagggcaca gccttactgc accatggcag
480

```

ctacatcaag ctgggctgcc tgcagtttgt cttcagcatc actgagtttg cgaccaaaca
 540
 gcccaaaagg gatgccagcg tgcctgcagga tgggggtcttg gccgagaagc tctctctcaa
 600
 gccccaccag ggccctgtgc tgcgctccaa ctctgttctc taggactggc ggctaccccg
 660
 ccactggcct gtacacccac ccaagactcc tgcaatgcaa aaatgtacac aaaccaagcc
 720
 cgggtgtttt ctatactcta ccagaaaccc ttcaactaca atctttgcat gaaatgaaga
 780
 aaaccttttg actgtttttt aaaaatcctt tttcttttct caagttctag ggggcatttg
 840
 cacatatatt tgtactcaac atttcatggg aaagcggcag acctgagctg aggaacagcg
 900
 tgggc
 905

<210> 3056

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3056

Met	Ser	Tyr	Arg	Thr	Leu	Tyr	Ile	Gly	Thr	Gly	Ala	Asp	Met	Asp	Val
1				5					10					15	
Cys	Leu	Thr	Asn	Tyr	Gly	His	Cys	Asn	Tyr	Val	Ser	Gly	Lys	His	Ala
			20					25					30		
Cys	Ile	Phe	Tyr	Asp	Glu	Asn	Thr	Lys	His	Tyr	Glu	Leu	Leu	Asn	Tyr
		35					40					45			
Ser	Glu	His	Gly	Thr	Thr	Val	Asp	Asn	Val	Leu	Tyr	Ser	Cys	Asp	Phe
	50					55				60					
Ser	Glu	Lys	Thr	Pro	Pro	Thr	Pro	Pro	Ser	Ser	Ile	Val	Ala	Lys	Val
65				70					75					80	
Gln	Ser	Val	Ile	Arg	Arg	Arg	His	Gln	Lys	Gln	Asp	Glu	Glu	Pro	
			85					90						95	
Ser	Glu	Glu	Ala	Ala	Met	Met	Ser	Ser	Gln	Ala	Gln	Gly	Pro	Gln	Arg
			100				105					110			
Arg	Pro	Cys	Asn	Cys	Lys	Ala	Ser	Ser	Ser	Ser	Leu	Ile	Gly	Gly	Ser
		115				120					125				
Gly	Ala	Gly	Trp	Glu	Gly	Thr	Ala	Leu	Leu	His	His	Gly	Ser	Tyr	Ile
	130					135				140					
Lys	Leu	Gly	Cys	Leu	Gln	Phe	Val	Phe	Ser	Ile	Thr	Glu	Phe	Ala	Thr
145				150					155					160	
Lys	Gln	Pro	Lys	Gly	Asp	Ala	Ser	Leu	Leu	Gln	Asp	Gly	Val	Leu	Ala
			165						170					175	
Glu	Lys	Leu	Ser	Leu	Lys	Pro	His	Gln	Gly	Pro	Val	Leu	Arg	Ser	Asn
			180					185						190	
Ser	Val	Pro													
		195													

<210> 3057

<211> 2169

<212> DNA

<213> Homo sapiens

<400> 3057
nnacgcgtgg aggtcgtgag ccaccgcgcc acgctcctgg cgccagatac cggggagacc
60
acgacgtgc ctctggggcg ccatgagttc ctgttcagct tccagctgcc cccgacctg
120
gtgacatcct tcgagggcaa acacggtagt gtccgctact gtatcaaggc caccctgcac
180
cggccctggg tcccagcacg ccgggcaagg aaggtgttca ctgtcatcga gcctgtggac
240
atcaaacgcg cagccctgct ggcacctcaa gcgggggctc gggaaaagg tggccgatcc
300
tggtactgta accgtggcct agtctccctt tcggccaaga tcgaccgcaa gggctacacc
360
ccaggagagg tcattccctgt ctttggcgag atcgacaacg gctccacaag tcctgtgctg
420
cctcgggcag ccgtgggtgca gacacagacg ttcattggccc gaggcgcccg aaagcagaaa
480
cgggcagtgg tggccagcct cgcgggcgag ccggtggggc ccgggcagcg ggcgctgtgg
540
cagggccggg cactgcggtat cccccagtg ggtccttcca tcctgcactg ccgcgttcta
600
cacgtggact acgcactcaa ggtctgtgtg gatatccacg gaacgtccaa gctgctgctg
660
gagctgccac tgggtgatcg caccattccc ttgcacctt ttggcagccg ttctccacgc
720
gtgggcagcc acgccagctt cctgctggac tggaggctgg gggccttgcc ggagcggcct
780
gaggctcttc ctgagtactc ggaggtggta gccgacactg aggaggcagc ctgggggcag
840
agcccccttc cgcttccgca ggaccccgac atgagccttg aaggcccggt ctctgcctac
900
atccaagagt tccgctaccg cccgccaccc ctgtactctg aggaggatcc aaacccactc
960
ttgggggaca tgaggccgcy ctgcatgact tgctgaacgg cacagggacc cctcaggaa
1020
caaggttgca caccagcttt cagccaccat gactgtgggg agtggctgga ccaagggctg
1080
acctccccga ctgcatcaaa gttgggggaa caagtctcag agtgaggcgg gggcctttcg
1140
gatatacatc gggacagagg aagagcccg ctggaatctg acttacctgg accgctgtcc
1200
ttgtgagga ttgaatgcc agtgagtat ccgagagact gtttaataac ctgtcttccc
1260
agccaattgg tgggtgctgga atcccctagg agccttcagt ctgggagaaa cagagccaga
1320
catagacagt tccagcatca cagaaccaga agaagagacc tgcaactgtg agagtccaga
1380
caggaagcag agaaggcgtc cttgcggaaa gggcatttta gctgaggctt tggagtacga
1440
ataggagctc agcaggcaga cgaatgagga ataaaggtca gagaaggta gagctgagt
1500
acgtttggaa tccaccccg ttattgtaga actgggggtt cagagggcag gtgcctcaga
1560

gttgaggcca cacagtgagg tctggtgggt gaaaggaccc aggaacgagg cggttcaggaa
 1620
 agcaggttgt cagagctatg tggagtctgt ggggtggcagg ggcagccgct ccagcctttg
 1680
 aagactttga aagccagaga ttcttggcgc aggcttggac ttcttggag ctctccaag
 1740
 taccagggg catcagagct gcctgggtgt tacatggccc agggaaacca ggttcagggt
 1800
 aggacaggca agaccagata cccaatgtgc aaagtgaata cactgggctc cctgttaaac
 1860
 gatgaagaat tcaagacagt gacagcatta cgtcaccctt ggggacagag gtcaccta
 1920
 ggtgacacac ggggactact gtgcttccgg aggtctccctg tgcctggag gaaaaagca
 1980
 ttagaggggg cagctggaca agctccaac tgcagagtc cagccctggc tggggcaggg
 2040
 ccccgccctg ggactcagca tttctgatat gccttaagaa ttcattctgt tttgtacaat
 2100
 tattttttaa aagtaaacgt gtggagaaaag aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 2160
 aaaaaaaaaa
 2169

<210> 3058

<211> 298

<212> PRT

<213> Homo sapiens

<400> 3058

Phe Gln Leu Pro Pro Thr Leu Val Thr Ser Phe Glu Gly Lys His Gly
 1 5 10 15
 Ser Val Arg Tyr Cys Ile Lys Ala Thr Leu His Arg Pro Trp Val Pro
 20 25 30
 Ala Arg Arg Ala Arg Lys Val Phe Thr Val Ile Glu Pro Val Asp Ile
 35 40 45
 Asn Thr Pro Ala Leu Leu Ala Pro Gln Ala Gly Ala Arg Glu Lys Val
 50 55 60
 Ala Arg Ser Trp Tyr Cys Asn Arg Gly Leu Val Ser Leu Ser Ala Lys
 65 70 75 80
 Ile Asp Arg Lys Gly Tyr Thr Pro Gly Glu Val Ile Pro Val Phe Ala
 85 90 95
 Glu Ile Asp Asn Gly Ser Thr Arg Pro Val Leu Pro Arg Ala Ala Val
 100 105 110
 Val Gln Thr Gln Thr Phe Met Ala Arg Gly Ala Arg Lys Gln Lys Arg
 115 120 125
 Ala Val Val Ala Ser Leu Ala Gly Glu Pro Val Gly Pro Gly Gln Arg
 130 135 140
 Ala Leu Trp Gln Gly Arg Ala Leu Arg Ile Pro Pro Val Gly Pro Ser
 145 150 155 160
 Ile Leu His Cys Arg Val Leu His Val Asp Tyr Ala Leu Lys Val Cys
 165 170 175
 Val Asp Ile Pro Gly Thr Ser Lys Leu Leu Glu Leu Pro Leu Val
 180 185 190
 Ile Gly Thr Ile Pro Leu His Pro Phe Gly Ser Arg Ser Ser Ser Val

	195		200		205
Gly	Ser His Ala Ser Phe Leu Leu Asp Trp Arg Leu Gly Ala Leu Pro				
210		215		220	
Glu Arg Pro Glu Ala Pro Pro Glu Tyr Ser Glu Val Val Ala Asp Thr					
225		230		235	240
Glu Glu Ala Ala Leu Gly Gln Ser Pro Phe Pro Leu Pro Gln Asp Pro					
	245		250		255
Asp Met Ser Leu Glu Gly Pro Phe Phe Ala Tyr Ile Gln Glu Phe Arg					
	260		265		270
Tyr Arg Pro Pro Pro Leu Tyr Ser Glu Glu Asp Pro Asn Pro Leu Leu					
	275		280		285
Gly Asp Met Arg Pro Arg Cys Met Thr Cys					
290		295			

<210> 3059

<211> 1411

<212> DNA

<213> Homo sapiens

<400> 3059

```

ntctagaacc aggaaggcgc tgagcttaaa ctgaagcaag ttcggtggac gccggcggcg
60
ccctgatcta aagaaacgac tcaggggactg cggcgcttgc acgtcaacgg gaggtgtgag
120
cccaaaggtc tggaccacaga aatggggactg cggtcatcag atactgaaga agaaagcaga
180
agcaagagaa aaaagaaaca ccgtagacgg tctctctcga gcagttcttc agatagtaga
240
acatacagcc gaaagaaagg aggaaggaaa tcaagatcaa agtcaagatc ttggtccaga
300
gatcttcagc ctgcgttcaca ttcttatgat agaagacgca ggcacgac aagcagtagc
360
tctctttatg gctccagaag gaaacgaagt cgaagtcggt caaggggtcg agggaaatcc
420
tatagagttc agaggtctag gtcaaaaagc agaacaagaa ggtccaggtc aagacctcgt
480
ctccgttctc atagtcgtag cagtgaagg tccagtcaca gaagaacgcg tagtcggtct
540
cgggatatag aacgacgtaa gggcagagat aaagagaaaa gagaaaagga gaaggataaa
600
gggaaggaca aggaattaca taacatcaaa cgtggggaat ctggaacat caaagctgga
660
ttagaacatc tgccaccagc tgaaccaggcc aaagccagac tacagctggt tcttgaagct
720
gtctcaaaaag ctgatgaagc attgaaagcc aaagaagaa atgagggaaga agcaaaagaga
780
agaaaggagg aagaccaagc caccctggta gaacaagtaa aaagagtaaa agaaattgaa
840
gctattgaaa gtgattcttt tgttcagcag acattcagat caagtaaaaga agtcaaaaag
900
tcagtggaa ctagtgaagt gaaacaagca acttcaacat caggaccagc atcagcagtt
960
gtgatccac ccagtactga aaaagaaata gatcctacca gcacccctac tgctatcaag
1020

```

taccaagatg acaattccct ggcccatcca aatttatatta tcgagaaagc tgatgctgag
 1080
 gaaaaatggt tcaagagatt aattgctctc cgacaagaaa gactaatggg cagtcctgtg
 1140
 gcctaagtaa tatacatata gttggattgg attgtcagca gtaacattgg aaatttaggt
 1200
 ttttaaatcc caatattaac tttttactct taaaaagaat ttgctgatt atatataaag
 1260
 gtagtctcat ttcatttgtc tctcatgtag gcttgaatat ttgttaattt gaattaaatc
 1320
 aaacattgta aaaattaaaa caaaatttaa gattgcatga aaatgttata ctgttaataa
 1380
 agctaaacat aaataagtct gttaaaaaaa a
 1411

<210> 3060

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3060

Met Gly Arg Arg Ser Ser Asp Thr Glu Glu Glu Ser Arg Ser Lys Arg
 1 5 10 15
 Lys Lys Lys His Arg Arg Arg Ser Ser Ser Ser Ser Ser Asp Ser
 20 25 30
 Arg Thr Tyr Ser Arg Lys Lys Gly Gly Arg Lys Ser Arg Ser Lys Ser
 35 40 45
 Arg Ser Trp Ser Arg Asp Leu Gln Pro Arg Ser His Ser Tyr Asp Arg
 50 55 60
 Arg Arg Arg His Arg Ser Ser Ser Ser Ser Tyr Gly Ser Arg Arg
 65 70 75 80
 Lys Arg Ser Arg Ser Arg Ser Arg Gly Arg Gly Lys Ser Tyr Arg Val
 85 90 95
 Gln Arg Ser Arg Ser Lys Ser Arg Thr Arg Arg Ser Arg Ser Arg Pro
 100 105 110
 Arg Leu Arg Ser His Ser Arg Ser Ser Glu Arg Ser Ser His Arg Arg
 115 120 125
 Thr Arg Ser Arg Ser Arg Asp Arg Glu Arg Arg Lys Gly Arg Asp Lys
 130 135 140
 Glu Lys Arg Glu Lys Glu Lys Asp Lys Gly Lys Asp Lys Glu Leu His
 145 150 155 160
 Asn Ile Lys Arg Gly Glu Ser Gly Asn Ile Lys Ala Gly Leu Glu His
 165 170 175
 Leu Pro Pro Ala Glu Gln Ala Lys Ala Arg Leu Gln Leu Val Leu Glu
 180 185 190
 Ala Ala Ala Lys Ala Asp Glu Ala Leu Lys Ala Lys Glu Arg Asn Glu
 195 200 205
 Glu Glu Ala Lys Arg Arg Lys Glu Glu Asp Gln Ala Thr Leu Val Glu
 210 215 220
 Gln Val Lys Arg Val Lys Glu Ile Glu Ala Ile Glu Ser Asp Ser Phe
 225 230 235 240
 Val Gln Gln Thr Phe Arg Ser Ser Lys Glu Val Lys Lys Ser Val Glu
 245 250 255
 Pro Ser Glu Val Lys Gln Ala Thr Ser Thr Ser Gly Pro Ala Ser Ala

```

                260                265                270
Val Ala Asp Pro Pro Ser Thr Glu Lys Glu Ile Asp Pro Thr Ser Ile
      275                280                285
Pro Thr Ala Ile Lys Tyr Gln Asp Asp Asn Ser Leu Ala His Pro Asn
      290                295                300
Leu Phe Ile Glu Lys Ala Asp Ala Glu Glu Lys Trp Phe Lys Arg Leu
      305                310                315                320
Ile Ala Leu Arg Gln Glu Arg Leu Met Gly Ser Pro Val Ala
      325                330

<210> 3061
<211> 1554
<212> DNA
<213> Homo sapiens

<400> 3061
nncgggagcg gtggcggtctc cccgccttcc ctccctcccg ggctgggcg cccagccgga
60
cagggtgagcg gcagccaggt atggcggtga cgggtggatgt ggccggggcca gcgccttggg
120
gcttcogtat cacaggggggc agggatttcc acacgccccat catggtgact aagggtggcgg
180
agcgggggcaa agccaaggac gctgacctcc ggcttgaga cataatcgtg gccatcaacg
240
gggaaaagcgc ggagggcatg ctgcatgccg agggccagag caagatccgc cagagccctc
300
cgcccttgcg gctgcagctg gaccgggtctc aggtctacgtc tccagggcag accaatgggg
360
acagctcctt ggaagtgtgt gcgactcgtc tccagggctc cgtgaggaca tacactgaga
420
gtcagtcctc cttaagggtcc tcctactcca gcccacctc cctcagcccg agggccggca
480
gccccttctc accaccaccc tctagcagct cctcactcgg agaggcgggc atcagcgtg
540
cttcagaggt ctggcatgtt ccccgggcct ccccgctgtc gaccgcctgt cctactcagg
600
ccgcccttga agccgacacg cggcctcggc gccgctggcg actcggcggt gctggtgtgtg
660
cgcctctccc cgggcccctg ttctctcagg ccagcatgg actcgggaagg ggaagaacctc
720
tctctggacg aggactcggg agtcttcaag atgctgcagg aaaatcgcga gggacggggc
780
gccccccgac agtccagctc ctttcgactc ttgcaggaa ccttgaggagc tgaggagaga
840
ggtggcacgc cagccttctt gccagctca ctgagcccc agtctctcct gccgcctcc
900
agggcccttg ccacccctcc caagctccac acttgtgaga agtgacgtac cagcatcgcg
960
aacaggctg tgcgcatcca ggagggcgcg tacgccacc cggctgcta cacctgtgcc
1020
gactctgggc tgaacctgaa gatgcgcggg cacttctggg tgggtgacga gctgtactgt
1080
gagaagcatg cccgccagcg ctactccgca cctgccacc tcagctctcg ggctgagcc
1140

```

cgccatgccc tcagcctgcc tcaactgctgg gccaggggtca tgcctatata agttggcatg
 1200
 gcaggggacaa tgggtgggcag ttgctcttac atgagctaag ttggagacc tgaggccctt
 1260
 ttgtcctcgc tgggtggggcc aagggtctggg acctgtcttg gactgtggga gactcaccct
 1320
 caccattgcca ggcctctccc ctgcaggact ggcattgcac tagtctgagg tggccactgc
 1380
 ctttgatcaa cctttgtgtg cgaggggtcta agtagggctg aacacagaag tgggaaggag
 1440
 aggggtggggc caggggctaa tgggtgtcact gtgtaaagt ttgacatac tagctctata
 1500
 aatatatgaa tatggacaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa
 1554

<210> 3062

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3062

Met Asp Ser Glu Gly Gly Ser Leu Leu Leu Asp Glu Asp Ser Glu Val
 1 5 10 15
 Phe Lys Met Leu Gln Glu Asn Arg Glu Gly Arg Ala Ala Pro Arg Gln
 20 25 30
 Ser Ser Ser Phe Arg Leu Leu Gln Glu Ala Leu Glu Ala Glu Arg
 35 40 45
 Gly Gly Thr Pro Ala Phe Leu Pro Ser Ser Leu Ser Pro Gln Ser Ser
 50 55 60
 Leu Pro Ala Ser Arg Ala Leu Ala Thr Pro Pro Lys Leu His Thr Cys
 65 70 75 80
 Glu Lys Cys Ser Thr Ser Ile Ala Asn Gln Ala Val Arg Ile Gln Glu
 85 90 95
 Gly Arg Tyr Arg His Pro Gly Cys Tyr Thr Cys Ala Asp Cys Gly Leu
 100 105 110
 Asn Leu Lys Met Arg Gly His Phe Trp Val Gly Asp Glu Leu Tyr Cys
 115 120 125
 Glu Lys His Ala Arg Gln Arg Tyr Ser Ala Pro Ala Thr Leu Ser Ser
 130 135 140
 Arg Ala
 145

<210> 3063

<211> 386

<212> DNA

<213> Homo sapiens

<400> 3063

nncttagagc tcctctctgg ccttgcaaa gtaaaagtga tggttgactc aggagaccgg
 60
 aagcagacca tcaagttctgt gtgcacctac attgtttatc agtgtagtcg gccagctcct
 120
 ttacactcca gggatctgca ctccatgata gtggcagctt ttcagtgtct ctgtgtctgg
 180

ctgacagagc accctgatat gcttgatgaa aaggactacc ttaaggaagt actggagatt
 240
 gtggaactgg gtatctcagg aagtaagtcc aagaacaatg agcaagaggt caagtacaaa
 300
 ggagataagg agccaaaccc tgcattctatg agggtaaagg atgctgctga agccacccta
 360
 acatgggtatg gaagtgaccg cacagg
 386

<210> 3064
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 3064
 Xaa Leu Glu Leu Leu Ser Gly Leu Ala Lys Val Lys Val Met Val Asp
 1 5 10 15
 Ser Gly Asp Arg Lys Arg Ala Ile Ser Ser Val Cys Thr Tyr Ile Val
 20 25 30
 Tyr Gln Cys Ser Arg Pro Ala Pro Leu His Ser Arg Asp Leu His Ser
 35 40 45
 Met Ile Val Ala Ala Phe Gln Cys Leu Cys Val Trp Leu Thr Glu His
 50 55 60
 Pro Asp Met Leu Asp Glu Lys Asp Tyr Leu Lys Glu Val Leu Glu Ile
 65 70 75 80
 Val Glu Leu Gly Ile Ser Gly Ser Lys Ser Lys Asn Asn Glu Gln Glu
 85 90 95
 Val Lys Tyr Lys Gly Asp Lys Glu Pro Asn Pro Ala Ser Met Arg Val
 100 105 110
 Lys Asp Ala Ala Glu Ala Thr Leu Thr Trp Tyr Gly Ser Asp Arg Thr
 115 120 125

<210> 3065
 <211> 2104
 <212> DNA
 <213> Homo sapiens

<400> 3065
 gggggacagg ccaggagggt ggccatggag gaggagcggg ggtcggcgct ggcggccgag
 60
 tcggcgctgg agaagaacgt ggccgagctg accgtcatg acgtgtacga catcgcgctg
 120
 cttgtgggcc acgagttcga gcgggtcatt gaccagcagc gctgcgaggc catcgcgcg
 180
 ctcatgccca aggtcgtgcg cgtcctggag atcctggagg tgctgggtcag ccgcccacc
 240
 gtcgcgcccg agctggacga gctgcgcctg gagctggacc gcctgcgcct ggagaggatg
 300
 gaccgcgctg agaaggagcg caagcaccag aaggagctgg agctgggtgga ggaatgtgtg
 360
 cgaggggagg cgcaggacct cctctccagg atcgcccgag tcgaggagga gaacaagcag
 420
 ctcatgacca acctctccca caaggatgtc aacttctcag aggaggaggt ccagaagcat
 480

gaaggcatgt cagagcggga gcgacaggtg atgaagaagc tgaaggagggt ggtaggacaaa
540
caacgcgacg agatccgcgc caaggacagg gagctgggcc tgaaaaatga ggacgttgag
600
gctttacagc agcagcagac acggctgatg aagatcaacc atgaccttcg gcacccgggtc
660
acggtaggtg aggccagggt gaaagccctg atcgaacaga aggtggagct ggaggcagac
720
ctgcagacca aggagcagga gatgggcagc ctgcgagcag agctggggaa gttgcgagag
780
aggctgcagg gggagcacag ccagaatggg gaggaggagc ctgagacgga gccggtggga
840
gaggagagca tctccgacgc agagaagggt gccatgngat ctcaaggacc cncaaccgcc
900
cccggttcac cctgcaggag ctgcgggacg tgctgcacga gaggaacgna gctcaagtcc
960
aaggtagttct tgctgcagga ggagctggct tactataaga gtgaagaaat ggaaggagaa
1020
aaccgaatac cccaaccccc acccatcgcc cacccgagga cgtcccccca gccgaggtcg
1080
ggcatcaagc gactgttttag cttcttctcc cgagataaga agcgccctggc caacacacag
1140
agaaaacgtgc acatccagga gtccctttgga cagtgggcaa acaccaccg cgatgacgggt
1200
tacacagagc aaggacagga agccctgcag catctgtgac cttagcccat ctccaccctc
1260
caactcggac tgcccgcac cagcgccctg aaccgaaactg cagccagagg gtcattgtg
1320
cctcaagcct ctccgtgcag atgcaccctg aaaactgacc cctcaaacag actgtctgat
1380
ttgaggatgg acattgaaaa actgacgcca aactctaaag aaatgtttat ttataccag
1440
ggctatcact gtttctaata gatgactctg atcccgtagg atatatatat aataatccca
1500
caaacggagg ccagacttct gcgttaactt cagtaacaca agcttcttta agccaaatac
1560
atcacttgcc actatcattg ctgtttgact tgctttgtat aaaatgctat gtgtagagggt
1620
ttattatca caggtgacat agttcagcag gaggcattgga agggctagat ctccattagt
1680
tacattcatg aaattgtgat ggtaacgtat tatacagaat gtatccatca ggcagacaag
1740
gggtctgaag tcacaggctc agtagcccaa ctgagacaca aagccacaga caatatggat
1800
gatggctctc ttaccagaa actggagaca actttgcagg caccctggct gcgttctcga
1860
taatgcctag agcatgtagc aatgttcaag gcagggtgcct tggaatctgc tgtgagttat
1920
gcagtactaa ccaaacaaag ttgctaagga tgagatgttg caacatttct ttggtgcact
1980
tttttttctt gacatctttt ttctctttta ggattcatta agtcataac tttagtccct
2040
gcaaagaaga agacagatgt cccagagcag actgaaagcg gggcgtggga tcttaggcaa
2100

tgca
2104

<210> 3066
<211> 183
<212> PRT
<213> Homo sapiens

<400> 3066
Leu Ile Glu Gln Lys Val Glu Leu Glu Ala Asp Leu Gln Thr Lys Glu
1 5 10 15
Gln Glu Met Gly Ser Leu Arg Ala Glu Leu Gly Lys Leu Arg Glu Arg
20 25 30
Leu Gln Gly Glu His Ser Gln Asn Gly Glu Glu Pro Glu Thr Glu
35 40 45
Pro Val Gly Glu Glu Ser Ile Ser Asp Ala Glu Lys Val Ala Met Xaa
50 55 60
Ser Gln Gly Pro Xaa Thr Ala Pro Gly Ser Pro Cys Arg Ser Cys Gly
65 70 75 80
Thr Cys Cys Thr Arg Gly Thr Xaa Leu Lys Ser Lys Val Phe Leu Leu
85 90 95
Gln Glu Glu Leu Ala Tyr Tyr Lys Ser Glu Glu Met Glu Glu Glu Asn
100 105 110
Arg Ile Pro Gln Pro Pro Pro Ile Ala His Pro Arg Thr Ser Pro Gln
115 120 125
Pro Glu Ser Gly Ile Lys Arg Leu Phe Ser Phe Phe Ser Arg Asp Lys
130 135 140
Lys Arg Leu Ala Asn Thr Gln Arg Asn Val His Ile Gln Glu Ser Phe
145 150 155 160
Gly Gln Trp Ala Asn Thr His Arg Asp Gly Tyr Thr Glu Gln Gly
165 170 175
Gln Glu Ala Leu Gln His Leu
180

<210> 3067
<211> 645
<212> DNA
<213> Homo sapiens

<400> 3067
ncagctgcag gtgggggagg ggacgagagc cacaccagc cgagcgggcc accagcggct
60
atgtcaggct caccgcccc caaagcagga tatgcgtccc caaacgagc gcagggagcc
120
tcnnagttc tagtccatca agcacgggag cgcactgcgg gctcaccacc ctgtctctcta
180
ccccgacctg acttgagacc cccgtccaca cctccccgc cgttcacaa ggagcaaaaa
240
aagtcagacc cacccccacc cccaccagga aaattcaagt ccttcctccc acccgggagc
300
ccaggaaatt cagctctagg tcccaggcga ggggtgggat ggcacgcggc cggcgccgcc
360
ccggccatgc ctgcgtccacc ttccggagacc ggcagacagg agatccccag ggcacgcgcg
420

tgtgcgcctt acccaccccc gggggcagga cgggggagcg agcaccgac ggcgcggggg
 480
 cgtcgatgcy gaagcaagga gccggaggcg gccctagacc gccctccgag ccacagcgaa
 540
 gaggagccgc cgcccgtgtc cgctgaggag actccgccta gcccgggccc gccaccgcyg
 600
 ggcgagtggg gatgagggga cggagcgagg acggctccca cgcgt
 645

<210> 3068
 <211> 204
 <212> PRT
 <213> Homo sapiens

<400> 3068
 Xaa Ala Ala Gly Gly Gly Asp Glu Ser His Thr Gln Pro Ser Gly
 1 5 10 15
 Pro Pro Ala Ala Met Ser Gly Ser Pro Ala Pro Lys Ala Gly Tyr Ala
 20 25 30
 Ser Pro Asn Arg Ala Gln Gly Pro Ser Xaa Val Leu Val His Gln Ala
 35 40 45
 Arg Glu Pro Thr Ala Gly Ser Pro Pro Cys Ser Leu Pro Arg Pro Asp
 50 55 60
 Leu Gln Pro Pro Ser Thr Pro Pro Pro Val His Lys Glu Gln Lys
 65 70 75 80
 Lys Ser Asp Pro Pro Pro Pro Pro Gly Lys Phe Lys Ser Phe Leu
 85 90 95
 Pro Pro Arg Ser Pro Gly Asn Ser Ala Leu Gly Pro Arg Arg Gly Trp
 100 105 110
 Gly Trp Ile Ala Ala Gly Gly Ala Pro Ala Met Pro Arg Pro Pro Ser
 115 120 125
 Gly Ala Gly Asp Arg Glu Ile Pro Arg Asp Leu Ala Cys Ala Pro Tyr
 130 135 140
 Pro Pro Pro Gly Ala Gly Arg Gly Ser Glu His Arg Ser Ala Pro Gly
 145 150 155 160
 Arg Arg Cys Gly Ser Lys Glu Pro Glu Ala Ala Ser Arg Pro Pro
 165 170 175
 Ser Pro Ala Glu Glu Glu Pro Pro Pro Val Ser Ala Glu Glu Thr Pro
 180 185 190
 Pro Ser Pro Ala Pro Pro Pro Arg Gly Glu Trp Gly
 195 200

<210> 3069
 <211> 1561
 <212> DNA
 <213> Homo sapiens

<400> 3069
 tttttttaaa attgcagtgg gtactttatt aagaatttat ttaccatctt agccattcaa
 60
 aacatcttta catcaacaaa cacagcagtt tgactattga aatcataagc gatttatctt
 120
 gaaaaggtta tattgttagg tggatgcaag tatattggag aaatatttct atcaaaatca
 180

ctgggtttgt taggagtatt ttgatttttc tatttttacg ctgggaaaaa aattaaaaca
240
agtatgtcag tgttcatttt atgggtagt tggcttcact gtgtttgtca tgtttgtccg
300
aattacagct gtttatcttg caactttaag attaatlaaa tgcaaatgta actctgtgaa
360
tcattgggaat acctgccaga cctcttatta ataccttcac ttaaaacccc ctgtgcctga
420
gagtcattaa tttgctaaaa gaaaagtgtc aaagcagccc ttgcccaca aacaattctg
480
cgatggctgc ccaattaatc ccaagcatt ctgactctcc tttcaggcct cgtggccctt
540
tgaggacaca agaaggctcc gatgataacc tggcaacctc ggtagaaacc cagccaagtg
600
tgagcgtttg aagctgcagt ttggctgcc a tctgtctggc gaaaagaaag aattcaggca
660
ccatgtcatc cagtacaaag gataaaaaac gattcaaccg gaaattcaat tgggccacc
720
atatgggata catgagtgcg gttatacaac aggccacata ttttttttga acagtctcct
780
acatgtgatg ccgaggacat gtgtaacctc cataacgtct ctaggaaatct gattttaatt
840
tgagtttggg tgggtggcagg gattggagat ctgaagccgc cacaggtttg tggcagatgg
900
ctctgtgtca gctatgacaa gcagccaggc tcagctctct ctgcagatct tctttctct
960
ctgacaggtt aaatatgggc acactctgga aagttcttca gattctgcct taggctgcaa
1020
gtttgtgact tagcccatc tgtcacaat cttccctagg ttctgttgta agcagagacc
1080
tgaatttacc atgtagggtc gcccaagaaa acggagcgat ttcaccctta tagagatgtt
1140
ttctataaat atctggtctc ttgcagaaat tctggagcct ttttgaaagc tgttcagggt
1200
tagaatacag atattcagct ggaaatatct cgggataaac caaatcttta ggacaagt
1260
ggtaacaccc acagtacaca gcttccaaca ttgccactcc aaagaattca tgcttagctg
1320
ttgagatgac aacatcagcc acgcacagta cttggaaata gtcactcttg ctgggtaagt
1380
agccccagtg taagacagaa gatcccaatg cctttttggc ctctgaaaaa atatctggga
1440
catctgtgaa ggtttctcca agtacagaca cgtggaaatt gagtcctaag tctttaagat
1500
gcattaatac cttaaaaaag ctttctggat ctttatcatg ctcccacctg tgaggccaga
1560
c
1561

<210> 3070

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3070

```

Met His Leu Lys Asp Leu Gly Leu Asn Phe His Val Ser Val Leu Gly
 1           5           10           15
Glu Thr Phe Thr Asp Val Pro Asp Ile Phe Ser Glu Ala Lys Lys Ala
 20           25           30
Leu Gly Ser Ser Val Leu His Trp Gly Tyr Leu Pro Ser Lys Asp Asp
 35           40           45
Tyr Phe Gln Val Leu Cys Val Ala Asp Val Val Ile Ser Thr Ala Lys
 50           55           60
His Glu Phe Phe Gly Val Ala Met Leu Glu Ala Val Tyr Cys Gly Cys
 65           70           75           80
Tyr Pro Leu Cys Pro Lys Asp Leu Val Tyr Pro Glu Ile Phe Pro Ala
 85           90           95
Glu Tyr Leu Tyr Ser Thr Pro Glu Gln Leu Ser Lys Arg Leu Gln Asn
100           105           110
Phe Cys Lys Arg Pro Asp Ile Ile Arg Lys His Leu Tyr Lys Gly Glu
115           120           125
Ile Ala Pro Phe Ser Trp Ala Ala Leu His Gly Lys Phe Arg Ser Leu
130           135           140
Leu Thr Thr Glu Pro Arg Glu Asp Leu
145           150

```

<210> 3071

<211> 3343

<212> DNA

<213> Homo sapiens

<400> 3071

```

gccgggatgg ggacgcccgt gcacccctgt tgtggcgtgg tttgggagca cagcaaagcg
60
cagactctac cctggagact gcagagctgg ggatgaggct tttccagct cctcttgggg
120
atgttccctgg ggataacttc cgggcccgcg ccttcacacg cccgcccagc aggtaaggct
180
ggcctctctg cagtcagagg tctgagctct gccatgggga taggggtgtc tttattactg
240
cagttttctc taacacctgg gggctaccgg agtgtggggc gaagcaggcg ctgcagccgc
300
ggatagtagc cccaggaaca tccccaagag gagctggaaa aagcctcatc cccagctctg
360
cagttctcag gggagctcag tgtctgtttg tccagcttct cagagttgct gtgcagctcg
420
gatgtggcat aggaacacgc agacacagg agagggcagc ataaggcact gttagggagca
480
gtggccacat tttctgcaga ggaagaaccg atgctggaac gtcgttgca gggccccctg
540
gccatgggccc tggcccagcc ccgactcctt tctgggccct cccaggagtc accccagacc
600
ctgggggaagg agtcccgcgg gctgaggcaa caaggcacgt cagtggccca gtctgtgtgc
660
caagcccccag gcagggccca tcgctgtgcc cactgtcgaa ggcacttccc tggctgggtg
720
gctctgtggc ttcacacccg ccggtgccag gcccggtcgc ccttgccctg ccttgagtg
780

```

ggccgtcgct ttccgcatgc ccccttctta gcactgcacc gccagggtcca tgctgctgcc
840
accgccagacc tgggctttgc ctgccacctc tgtgggcaga gcttccgagg. ctgggtggcc
900
ctggttcttc atctgcgggc ccattcagct gcaaaaggcg ccatacgcttg tcccaaatgc
960
gagagacgct tctggcgacg aaagcagctt cgagctcacc tgcggcggtg ccacctcccc
1020
gccccggagg cccggccctt catatgcggc aactgtggcc ggagctttgc ccagtgggac
1080
cagctagtgt cccacaagcg ggtgcacgta gctgaggccc tggaggaggc cgcagccaag
1140
gctctggggc cccggcccag gggcgcccc cggtgaccg cccccggcc cggtggagat
1200
gccgtcgacc gcccttcca gtgtgctgt tgtggcaagc gcttcggca caagcccaac
1260
ttgatcgctc accgcccgct gcacacgggc gagcgcccc accagtgcgc cgagtgcggg
1320
aagcgtctta ccaataagcc ctatctgact tcgcaccggc gcatccacac cggcgagaag
1380
ccctaccgtg gcaaaagagt cggccgcgcg ttcgggcaca aaccacact gctgtctcac
1440
agcaagattc acnnaagcga tccgaggggt cggcccaggc cggccccggc cggggagacc
1500
cccagctgac agccggcccc caggagtccg cggccgagcc cccccggcg gtacctctga
1560
aacccgcccc ggagccgcgc ccaggggccc cgccagacca cccgcnagga cccgatcgaa
1620
gccccccctt cctctacag ctgcgacgac tgcggcagga gcttccggct ggagcgcttc
1680
ctgcggggcc accagcgcca gcacaccggg gagcgccctt tcacctgcgc cgagtgcggg
1740
aagaaacttg gcaagaagac gcacctggtg gcgcactcgc gcgtgcactc cggcgagcgg
1800
cccttcgcct cgcagagagt cggccgcgcg ttctcccagg gcagccatct ggcggcgcat
1860
cggcgggacc acgccccga tcggcccttc gtgtgtcccg actcgggcaa ggccttccgc
1920
cacaaccctt acctggcggc gcaccggcgc atccacaccg gcgagaagcc ctacgtctgc
1980
cccgaactcg gcaaaacctt cagccagaag tccaacctgg tgtcgaccg gcgcattcac
2040
acggcgagag ggcctacgc ctgtcccgac tgcgacgcca gcttcagcca gaagtccaac
2100
ctcatcacc accgcaagag ccacatccgg gacggcgctt tctgctgtgc catctgtggc
2160
cagaccttcg acgacgagga gagactcctg gccaccaga agaagcacga tgtctgagac
2220
ggtggggcgg gccgtgttg ctgagagagg gctggggctc ttcgtggtgg gagtgcaggt
2280
gggctggggg tgccctgccta gtgctggagt aggggacaat gggaatccta gaggggatgg
2340
aagacggggg gagtgagctg ggtgggccc gctagcgaga gaggtcaacc ccggtggcca
2400

gggaaccac ttccaagcgc agggacgccc gcctccagct ggtgtgtgct aaggtccgt
 2460
 cctgaactgcc ctgtgccctg gaaaagcagc aatagcatcc gccctctaga gccctctggc
 2520
 tagaggagcc accagtggaa aggaagaccc tccatctctt ggtattaacg ccttaatgcc
 2580
 cctgtctttt actgtaagtt acttaagatc atttttggaa gcaggcgtgg tagagtctgt
 2640
 taaatgaatg ctctgggcta gatacagctt ggagaacctg ctggccttgt tagacagcac
 2700
 ttgggcccctt gccagcagca agaggtgaag cgaagccact cttacctctc ccttcccctc
 2760
 ccacctgccc cctgcgtagg caccagactc tggagagacc cgtctgctgt tagtacttcc
 2820
 atcctcttcc ttcccaaaga gcagacccca aggcatttac tccttggtct gtctcgtttt
 2880
 atctgtgcgc cctcccagcg ctgagagcct cccctggctg tcagcagcac tgtgtccagg
 2940
 ctcttgtctg aacaccgcag cccctctctc gctccttcca gagctcagca tgtcaggcca
 3000
 aggaactgcc cattggtgat ggagggccag ctgaggggaa gttgctggtg agtttctttt
 3060
 tctccatttc tagcatatgg acacctggcc tctgcttgag cacttaggtg acaggaactt
 3120
 ccgcacctcc tgaggccctg gatgattcta attgttagaa attctaattg tttagaaatcc
 3180
 ttccattataa tgaatgaatt ctgctttcct ataatttcta cctattgggc ctgtgtctgt
 3240
 tctctggaac taaacagaac aaccatttac cctctctttt caaactagag aataaagatt
 3300
 tgggttttaga aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa
 3343

<210> 3072

<211> 349

<212> PRT

<213> Homo sapiens

<400> 3072

Met Leu Glu Arg Arg Cys Arg Gly Pro Leu Ala Met Gly Leu Ala Gln
 1 5 10 15
 Pro Arg Leu Leu Ser Gly Pro Ser Gln Glu Ser Pro Gln Thr Leu Gly
 20 25 30
 Lys Glu Ser Arg Gly Leu Arg Gln Gln Gly Thr Ser Val Ala Gln Ser
 35 40 45
 Gly Ala Gln Ala Pro Gly Arg Ala His Arg Cys Ala His Cys Arg Arg
 50 55 60
 His Phe Pro Gly Trp Val Ala Leu Trp Leu His Thr Arg Arg Cys Gln
 65 70 75 80
 Ala Arg Leu Pro Leu Pro Cys Pro Glu Cys Gly Arg Arg Phe Arg His
 85 90 95
 Ala Pro Phe Leu Ala Leu His Arg Gln Val His Ala Ala Thr Pro
 100 105 110
 Asp Leu Gly Phe Ala Cys His Leu Cys Gly Gln Ser Phe Arg Gly Trp

115	120	125
Val Ala Leu Val Leu His Leu Arg Ala His Ser Ala Ala Lys Arg Pro		
130	135	140
Ile Ala Cys Pro Lys Cys Glu Arg Arg Phe Trp Arg Arg Lys Gln Leu		
145	150	155
Arg Ala His Leu Arg Arg Cys His Pro Pro Ala Pro Glu Ala Arg Pro		
165	170	175
Phe Ile Cys Gly Asn Cys Gly Arg Ser Phe Ala Gln Trp Asp Gln Leu		
180	185	190
Val Ala His Lys Arg Val His Val Ala Glu Ala Leu Glu Glu Ala Ala		
195	200	205
Ala Lys Ala Leu Gly Pro Arg Pro Arg Gly Arg Pro Ala Val Thr Ala		
210	215	220
Pro Arg Pro Gly Gly Asp Ala Val Asp Arg Pro Phe Gln Cys Ala Cys		
225	230	235
Cys Gly Lys Arg Phe Arg His Lys Pro Asn Leu Ile Ala His Arg Arg		
245	250	255
Val His Thr Gly Glu Arg Pro His Gln Cys Pro Glu Cys Gly Lys Arg		
260	265	270
Phe Thr Asn Lys Pro Tyr Leu Thr Ser His Arg Arg Ile His Thr Gly		
275	280	285
Glu Lys Pro Tyr Pro Cys Lys Glu Cys Gly Arg Arg Phe Arg His Lys		
290	295	300
Pro Asn Leu Leu Ser His Ser Lys Ile His Xaa Ser Asp Pro Arg Gly		
305	310	315
Arg Pro Arg Pro Pro Pro Ala Arg Gly Ala Pro Ser Cys Gln Pro Ala		
325	330	335
Pro Arg Ser Pro Arg Pro Ser Pro Pro Arg Arg Tyr Leu		
340	345	

<210> 3073

<211> 791

<212> DNA

<213> Homo sapiens

<400> 3073

```

nngccctgcc tgaggcgaga gctgaagctg ctcgagtcca tcttccaccg cggccacgag
60
cgcttccgca ttgccagcgc ctgcctggac gagctgagct gcgagttcct gctggctggg
120
gcgcggagggg ccggggcggg ggccgcgccc ggaccgcac tccccccacg ggggtcgggt
180
cttgggggac ctgtccgcat ccactgcaac atcacggagt catacctgc tgtgcccccc
240
atctggctcg tggagtctga tgaccctaac ttggctgctg tcttgagag gctgggtggac
300
ataaagaaag ggaataactct gctattgcag catctgaaga ggatcatctc cgacctgtgt
360
aaactctata acctccctca gcatccagat gtggagatgc tggatcaacc cttgccagca
420
gagcagtgca cacaggaaga cgtgtcttca gaagatgaag atgaggagat gcctgaggac
480
acagaagact tagatcacta tgaaatgaaa gaggaagagc cagctgaggg caagaaatct
540

```

gaagatgatg gcattggaag agaaaacttg gccatcctag agaaaattaa aaagaaccag
 600
 aggcaagatt acttaaatgg tgcagtgtct ggctcgggtgc agggcactga ccggctgatg
 660
 aaggagctcc agggatatat taccgnttca cagagtttca aaggcggaag ctatgncagt
 720
 tcgaactcgt ggaatgacag tctgtatggg tgggatgttc aactcctcaa agttgaccag
 780
 ggcagcggtt a
 791

<210> 3074

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3074

Xaa Pro Cys Leu Arg Arg Glu Leu Lys Leu Leu Glu Ser Ile Phe His
 1 5 10 15
 Arg Gly His Glu Arg Phe Arg Ile Ala Ser Ala Cys Leu Asp Glu Leu
 20 25 30
 Ser Cys Glu Phe Leu Leu Ala Gly Ala Gly Gly Ala Gly Ala Gly Ala
 35 40 45
 Ala Pro Gly Pro His Leu Pro Pro Arg Gly Ser Val Pro Gly Asp Pro
 50 55 60
 Val Arg Ile His Cys Asn Ile Thr Glu Ser Tyr Pro Ala Val Pro Pro
 65 70 75 80
 Ile Trp Ser Val Glu Ser Asp Asp Pro Asn Leu Ala Ala Val Leu Glu
 85 90 95
 Arg Leu Val Asp Ile Lys Lys Gly Asn Thr Leu Leu Leu Gln His Leu
 100 105 110
 Lys Arg Ile Ile Ser Asp Leu Cys Lys Leu Tyr Asn Leu Pro Gln His
 115 120 125
 Pro Asp Val Glu Met Leu Asp Gln Pro Leu Pro Ala Glu Gln Cys Thr
 130 135 140
 Gln Glu Asp Val Ser Ser Glu Asp Glu Asp Glu Glu Met Pro Glu Asp
 145 150 155 160
 Thr Glu Asp Leu Asp His Tyr Glu Met Lys Glu Glu Glu Pro Ala Glu
 165 170 175
 Gly Lys Lys Ser Glu Asp Asp Gly Ile Gly Lys Glu Asn Leu Ala Ile
 180 185 190
 Leu Glu Lys Ile Lys Lys Asn Gln Arg Gln Asp Tyr Leu Asn Gly Ala
 195 200 205
 Val Ser Gly Ser Val Gln Ala Thr Asp Arg Leu Met Lys Glu Leu Gln
 210 215 220
 Gly Tyr Ile Thr Xaa Ser Gln Ser Phe Lys Gly Gly Asn Tyr Xaa Ser
 225 230 235 240
 Ser Asn Ser Trp Asn Asp Ser Leu Tyr Gly Trp Asp Val Gln Leu Leu
 245 250 255
 Lys Val Asp Gln Gly Ser Val
 260

<210> 3075

<211> 603

<212> DNA

<213> Homo sapiens

<400> 3075

```

ccccctggggg gaaaaaattt tttaaaaaaa atggtgggga aaaacccccccc cccgccccccc
60
cccttttttt cccccgtggg ggccaaaaaa aaaaatgtgg gcccccaaaa aaaaaaaaaa
120
aaaaaaaaaa aagtcttggg aggggggtcgg tttggccagg tccacaggtg cacagagaag
180
ttcacaggcc ttgacttggc agccaagatc atcaaagtga agaactgtaaa ggacggggag
240
gatgtgaaga atgaggtcaa catcatgaac cagctcagcc acgtaaactt gatccaactt
300
tatgatgcgt ttgagagcaa gagcagcttc actctgatca tggagtatgt ggtggaggc
360
gaactctttg accggatcac ggtgagaag taccacctca ctgagttgga tgtggtcttg
420
ttcacgaggc agatctgtga ggggtgtgcat tacctgcatc agcactatat cctgcacctg
480
gacctcaagc ctgagaacat attgtgtgtc agccagacag ggcataaat taagatcatt
540
gaacttgggc tggctagaag atacaagcct cgggagaagc taaaggtgaa ctttggtagt
600
ccg
603

```

<210> 3076

<211> 201

<212> PRT

<213> Homo sapiens

<400> 3076

```

Pro Leu Gly Gly Lys Asn Phe Leu Lys Lys Met Val Gly Lys Asn Pro
1      5      10      15
Pro Pro Pro Pro Phe Phe Ser Pro Val Gly Ala Lys Lys Lys Asn
20      25      30
Val Gly Pro Gln Lys Lys Lys Lys Lys Lys Lys Val Leu Gly Gly
35      40      45
Gly Arg Phe Gly Gln Val His Arg Cys Thr Glu Lys Ser Thr Gly Leu
50      55      60
Ala Leu Ala Ala Lys Ile Ile Lys Val Lys Asn Val Lys Asp Arg Glu
65      70      75      80
Asp Val Lys Asn Glu Val Asn Ile Met Asn Gln Leu Ser His Val Asn
85      90      95
Leu Ile Gln Leu Tyr Asp Ala Phe Glu Ser Lys Ser Ser Phe Thr Leu
100     105     110
Ile Met Glu Tyr Val Asp Gly Gly Glu Leu Phe Asp Arg Ile Thr Asp
115     120     125
Glu Lys Tyr His Leu Thr Glu Leu Asp Val Val Leu Phe Thr Arg Gln
130     135     140
Ile Cys Glu Gly Val His Tyr Leu His Gln His Tyr Ile Leu His Leu
145     150     155     160
Asp Leu Lys Pro Glu Asn Ile Leu Cys Val Ser Gln Thr Gly His Gln

```

	165		170		175
Ile	Lys	Ile	Ile	Asp	Phe
		Gly	Leu	Ala	Arg
				Tyr	Lys
				Pro	Arg
					Glu
	180		185		190
Lys	Leu	Lys	Val	Asn	Phe
		Gly	Thr	Pro	
	195		200		

<210> 3077

<211> 1377

<212> DNA

<213> Homo sapiens

<400> 3077

```

ngctcgactg cgaattactg tttatgaggt gactcgctgg ttctatcggg ggacagtggg
60
acattctgaa gggaggcaag gaggcgact gagcgctccc aattggggag gatgctgggtg
120
gtggaggtgg cgaacggccg ctccctgggt tggggagccg aggcggtgca ggcctccggg
180
gagcgcttgg gtgtgggggg ccgcacggta ggcgcccctgc cccgcgggcc ccgccagaac
240
tcgcgcctgg gcctcccgtg gctgctgatg cccgaagagg cgcggctctt ggccgagatc
300
ggcgccgtga ctctgggtcag cgcgcccgct ccagactctc ggcaccacag cctggccctg
360
acatccttca agcgcacgca agaggagagc ttccaggagc agagcgctt ggacgtgtgag
420
gcccgggaga cccgtcgtca ggagctcctg gagaagatta cggagggccca ggctgctaag
480
aagcagaaac tagaacaggc ttcaggggcc agctcaagcc aggaggcccg ctcgagccag
540
gctgccaaag aggatgagac cagtgatggc caggcttcgg gagagcagga ggaagctggc
600
ccctcgtctt cccaagcagg accctcaaat ggggtagccc ccttgcccag atctgctctc
660
ctgttccagc tggccactgc caggcctcga ccggtcaagg ccaggccctt ggactggcgt
720
gtccagtcta aagactggcc ccacgcggcg cgccttgccc acgagctcgc ctacagtatc
780
tacagagacc tgtgggagcg aggccttctc ctacgtgcgg ctggcaagtt cggagggtgac
840
ttcctgggtt atcctgggtg cccctccgcg ttccacgccc attatatcgc tcatgtctgg
900
gccctgagg acaccatccc actccaagac ctgggttctg ctggggcgctt tggaaccagc
960
gtcagaaaga cctgctcct ctgttctccg cagcctgatg gtaagtggt ctacacctcc
1020
ctgcaatggg ccagcctgca gtgaactcca gagacctagg ggatgtggct gtgtcggcag
1080
caagagcctt tctggatggt cccagctctt tctctgggag tctagaacat cctcctacct
1140
ttctcccgcg ttagtttttg attccaggtt ttccgaacct acatcttttt tatgtttctc
1200
cttgtttcaa agcacttatt gsetgtgttt ttgtagttae ctattttcac actgtgagct
1260

```

tcccgagaat ggggcctggg ttgattcat ctgttttcta cagggtttaa gtctcaggag
 1320
 gtccaataa acttggtata taaatgttaa aaaaaaaaaa aaaaaaaaaa aaaaaaa
 1377

<210> 3078

<211> 310

<212> PRT

<213> Homo sapiens

<400> 3078

Met	Leu	Val	Val	Glu	Val	Ala	Asn	Gly	Arg	Ser	Leu	Val	Trp	Gly	Ala
1			5						10					15	
Glu	Ala	Val	Gln	Ala	Leu	Arg	Glu	Arg	Leu	Gly	Val	Gly	Gly	Arg	Thr
		20					25					30			
Val	Gly	Ala	Leu	Pro	Arg	Gly	Pro	Arg	Gln	Asn	Ser	Arg	Leu	Gly	Leu
		35				40					45				
Pro	Leu	Leu	Leu	Met	Pro	Glu	Glu	Ala	Arg	Leu	Leu	Ala	Glu	Ile	Gly
	50				55					60					
Ala	Val	Thr	Leu	Val	Ser	Ala	Pro	Arg	Pro	Asp	Ser	Arg	His	His	Ser
65			70						75					80	
Leu	Ala	Leu	Thr	Ser	Phe	Lys	Arg	Gln	Gln	Glu	Glu	Ser	Phe	Gln	Glu
			85						90				95		
Gln	Ser	Ala	Leu	Ala	Ala	Glu	Ala	Arg	Glu	Thr	Arg	Arg	Gln	Glu	Leu
		100					105					110			
Leu	Glu	Lys	Ile	Thr	Glu	Gly	Gln	Ala	Ala	Lys	Lys	Gln	Lys	Leu	Glu
		115				120						125			
Gln	Ala	Ser	Gly	Ala	Ser	Ser	Ser	Gln	Glu	Ala	Gly	Ser	Ser	Gln	Ala
	130				135						140				
Ala	Lys	Glu	Asp	Glu	Thr	Ser	Asp	Gly	Gln	Ala	Ser	Gly	Glu	Gln	Glu
145				150					155					160	
Glu	Ala	Gly	Pro	Ser	Ser	Ser	Gln	Ala	Gly	Pro	Ser	Asn	Gly	Val	Ala
			165						170					175	
Pro	Leu	Pro	Arg	Ser	Ala	Leu	Leu	Val	Gln	Leu	Ala	Thr	Ala	Arg	Pro
	180						185						190		
Arg	Pro	Val	Lys	Ala	Arg	Pro	Leu	Asp	Trp	Arg	Val	Gln	Ser	Lys	Asp
	195					200						205			
Trp	Pro	His	Ala	Gly	Arg	Pro	Ala	His	Glu	Leu	Arg	Tyr	Ser	Ile	Tyr
	210				215						220				
Arg	Asp	Leu	Trp	Glu	Arg	Gly	Phe	Phe	Leu	Ser	Ala	Ala	Gly	Lys	Phe
225				230					235					240	
Gly	Gly	Asp	Phe	Leu	Val	Tyr	Pro	Gly	Asp	Pro	Leu	Arg	Phe	His	Ala
			245						250				255		
His	Tyr	Ile	Ala	Gln	Cys	Trp	Ala	Pro	Glu	Asp	Thr	Ile	Pro	Leu	Gln
		260					265					270			
Asp	Leu	Val	Ala	Ala	Gly	Arg	Leu	Gly	Thr	Ser	Val	Arg	Lys	Thr	Leu
	275						280					285			
Leu	Leu	Cys	Ser	Pro	Gln	Pro	Asp	Gly	Lys	Val	Val	Tyr	Thr	Ser	Leu
	290					295					300				
Gln	Trp	Ala	Ser	Leu	Gln										
305					310										

<210> 3079

<211> 1785

<212> DNA

<213> Homo sapiens

<400> 3079

atggacacac tctatactgg ctccagccca tctgaaccag gctccagctg ctcacccaca
60
ccccccctg tgccccccg aggacccac accaccgtgt cccaagtcca gccccctccc
120
tccaaggcat cagcacctga accccctgca gaagaagaag tggcaactgg tacaacctca
180
gcctctgatg acctggaagc cctgggtaca ctgagcctgg ggaccacaga ggagaaggca
240
gcagctgagg cggctgtgcc caggaccatt ggggcccagc tgatggagct ggtgcggaga
300
aacactggcc tgagccacga attatgccgg gtggccatcg gcacatagtg gggtcacatc
360
caggcctcgg tggcggccag ctcaccagtc atggagcagg tctcctcttc actcgtagag
420
ggcaaggacc tcagcatggc cctgcctcca gggcaggctc gccacgacca gcagaggctg
480
gaggtgatct ttgcagacct ggctcgccgg aaggacgacg cccagcagcg cagttgggca
540
ctatatgagg atgaggggtg catccgctgc tacctagagg agctgctgca tattctgact
600
gatgcagacc ctgaagtttg caagaaaatg tgcaagagaa acgagttcga gtctgtcctg
660
gccttgggtg cctattacca aatggaacac cgagcatcac tgcgggtgct gctcctcaag
720
tgcttggcg ccatgtgcag cctggatgca gccatcatct ccacgcttgt gtcatccgtg
780
ctgcctgtag agctggcgag ggacatgcag acagacacgc aggaccacca gaaactctgt
840
tactctgcc tcactcctggc catggtcttc tccatgggag aggcagtgcc ctatgcacac
900
tatgagcacc tgggcacgcc ttlogcccag ttctactga acatcgtcga ggatgggctg
960
cccttgagca ccacagagca gctgcgggac ctctgcgtga acctgcttct ggtctctaac
1020
ctgcacctgc cagctgctga ccagaatgic atcatggctg ccttgagcaa acacgccaat
1080
gtcaagatct tctccagaaa gctgttgttg ctccatgaac gaggggagta cctgtgtcgc
1140
atcttcaaac atgagccaca gccaccacac tctgtctcca agttcctgca ggacgtgttt
1200
ggcagcccg ccacagctgc catctctac cacacagaca tgatggctct cattgacatc
1260
actgtgcggc acatcgaga cctgtcacca ggagacaagg gaccgttcgg ggcgggcccag
1320
aggccttgge caggagtcc tcgcctgtta gaaccaggat ccaccccatc gcggggagcgg
1380
caccctgtgg agcgttcttg ggtcccggcc ctgacctctt cctgggcttc gggatgcccg
1440
cgctcctcgc acccgcgctg gcagctcgtt atcgattccg cctttggagg ccggtccgta
1500

tagtgtactc ccgactctc tcacggttag cggcaaccc gcggagcccc ctcccccatg
 1560
 cgatgagtc gccgtctagg gggggggcct ccaatgtgc caatagaac aatgactgac
 1620
 cgattggagt gctccgcgtt caccctcgc ctccgtctct ctctgacgt ctgttgccgc
 1680
 aggtccaccc attggcctgg cgagaccggc gcgtgccagg agttacgcag ggagagctgg
 1740
 aatgcaccga ggggtggggg aggactgagt ttctgtgtca gtccc
 1785

<210> 3080

<211> 500

<212> PRT

<213> Homo sapiens

<400> 3080

Met	Asp	Thr	Leu	Tyr	Thr	Gly	Ser	Ser	Pro	Ser	Glu	Pro	Gly	Ser	Ser
1			5					10					15		
Cys	Ser	Pro	Thr	Pro	Pro	Val	Pro	Arg	Arg	Gly	Thr	His	Thr	Thr	
		20					25				30				
Val	Ser	Gln	Val	Gln	Pro	Pro	Pro	Ser	Lys	Ala	Ser	Ala	Pro	Glu	Pro
		35					40				45				
Pro	Ala	Glu	Glu	Glu	Val	Ala	Thr	Gly	Thr	Thr	Ser	Ala	Ser	Asp	Asp
		50				55				60					
Leu	Glu	Ala	Leu	Gly	Thr	Leu	Ser	Leu	Gly	Thr	Thr	Glu	Glu	Lys	Ala
		65			70				75					80	
Ala	Ala	Glu	Ala	Ala	Val	Pro	Arg	Thr	Ile	Gly	Ala	Glu	Leu	Met	Glu
			85					90						95	
Leu	Val	Arg	Arg	Asn	Thr	Gly	Leu	Ser	His	Glu	Leu	Cys	Arg	Val	Ala
			100				105					110			
Ile	Gly	Ile	Ile	Val	Gly	His	Ile	Gln	Ala	Ser	Val	Pro	Ala	Ser	Ser
		115				120					125				
Pro	Val	Met	Glu	Gln	Val	Leu	Leu	Ser	Leu	Val	Glu	Gly	Lys	Asp	Leu
		130				135				140					
Ser	Met	Ala	Leu	Pro	Ser	Gly	Gln	Val	Cys	His	Asp	Gln	Gln	Arg	Leu
			145		150				155					160	
Glu	Val	Ile	Phe	Ala	Asp	Leu	Ala	Arg	Arg	Lys	Asp	Asp	Ala	Gln	Gln
			165					170					175		
Arg	Ser	Trp	Ala	Leu	Tyr	Glu	Asp	Glu	Gly	Val	Ile	Arg	Cys	Tyr	Leu
		180					185					190			
Glu	Glu	Leu	Leu	His	Ile	Leu	Thr	Asp	Ala	Asp	Pro	Glu	Val	Cys	Lys
		195				200					205				
Lys	Met	Cys	Lys	Arg	Asn	Glu	Phe	Glu	Ser	Val	Leu	Ala	Leu	Val	Ala
		210				215					220				
Tyr	Tyr	Gln	Met	Glu	His	Arg	Ala	Ser	Leu	Arg	Leu	Leu	Leu	Leu	Lys
		225			230					235				240	
Cys	Phe	Gly	Ala	Met	Cys	Ser	Leu	Asp	Ala	Ala	Ile	Ile	Ser	Thr	Leu
			245					250						255	
Val	Ser	Ser	Val	Leu	Pro	Val	Glu	Leu	Ala	Arg	Asp	Met	Gln	Thr	Asp
			260				265					270			
Thr	Gln	Asp	His	Gln	Lys	Leu	Cys	Tyr	Ser	Ala	Leu	Ile	Leu	Ala	Met
		275					280				285				
Val	Phe	Ser	Met	Gly	Glu	Ala	Val	Pro	Tyr	Ala	His	Tyr	Glu	His	Leu

290				295				300							
Gly	Thr	Pro	Phe	Ala	Gln	Phe	Leu	Leu	Asn	Ile	Val	Glu	Asp	Gly	Leu
305				310				315							320
Pro	Leu	Asp	Thr	Thr	Glu	Gln	Leu	Pro	Asp	Leu	Cys	Val	Asn	Leu	Leu
				325				330							335
Leu	Ala	Leu	Asn	Leu	His	Leu	Pro	Ala	Ala	Asp	Gln	Asn	Val	Ile	Met
			340					345					350		
Ala	Ala	Leu	Ser	Lys	His	Ala	Asn	Val	Lys	Ile	Phe	Ser	Glu	Lys	Leu
			355				360						365		
Leu	Leu	Leu	Leu	Asn	Arg	Gly	Asp	Pro	Val	Arg	Ile	Phe	Lys	His	
			370			375				380					
Glu	Pro	Gln	Pro	Pro	His	Ser	Val	Leu	Lys	Phe	Leu	Gln	Asp	Val	Phe
			385		390				395						400
Gly	Ser	Pro	Ala	Thr	Ala	Ala	Ile	Phe	Tyr	His	Thr	Asp	Met	Met	Ala
			405					410					415		
Leu	Ile	Asp	Ile	Thr	Val	Arg	His	Ile	Ala	Asp	Leu	Ser	Pro	Gly	Asp
			420					425					430		
Lys	Gly	Pro	Phe	Gly	Ala	Gly	Gln	Arg	Pro	Trp	Pro	Gly	Val	Pro	Arg
			435				440					445			
Leu	Leu	Glu	Pro	Gly	Ser	Thr	Pro	Ser	Arg	Glu	Pro	His	Pro	Val	Glu
			450			455					460				
Arg	Ser	Gly	Val	Pro	Ala	Leu	Thr	Ser	Ser	Trp	Ala	Ser	Gly	Cys	Pro
			465		470				475						480
Arg	Pro	Leu	His	Pro	Ala	Leu	Gln	Leu	Val	Ile	Asp	Ser	Ala	Phe	Gly
			485					490					495		
Gly	Arg	Ser	Val												
			500												

```
<210> 3081
<211> 1902
<212> DNA
<213> Homo sapiens
```

```

400> 3081
ntcatgagc agatggacga acttggccgc gtcgtcgtgg cagtctctga ggattttctc
60
ccacatggcg acgaactctg ggacggacac ggagcccgct cgctccccc gccacgagcg
120
caagcattc cgaccttcta ctccccaga ggacgccgc aggaactcgt cacgtggatc
180
gccgtcatca gcaagatcga gagcaccttc gcccggttcc cccacgagag gccaccatg
240
gagcatcatg gectggtggc caaggcctgc ggctgccccc tctactggaa ggggcgcctc
300
tctatggcg ccggcgggga gcgcacgggc tccgtgtccg tccacaagt cgtgcctatg
360
tggagaaaaa tctccagaa ctgccacgac gacgcggcca agttcgtcca tctgctcatg
420
agccccggct gcaactacct ggtgcaggag gacttgtcc cttctctga ggacgtggtg
480
aacacgcacc cgggctgtc gtctctgaag gaggcgtccg agttccactc gcgctacatc
540
accacggtca tccagcggat ctctacgcc gtgaaccggt cctggctccg gcggatcacc
600

```


tgcgcgcgagc tgcggaggag ctcttctctg cagaatgtgg cgctgctgga ggaggaggcg
 660
 gacatcaacc agctgaccga attcttctcg tacgagcatt tctacgtcat ctactgcaag
 720
 ttctggggagc tggacacgga ccacgacctg ctcatcgacg cggacgacct ggccggggcac
 780
 aatgaccacg ccccttctac caagatgata gacaggatct tctcaggagc agtcacacga
 840
 ggcagaaaag tgcagaagga agggaagatc agctatgccg actttgtctg gtttttgatc
 900
 tctgagggaag acaaaaaaac accgaccagc atcgagtact ggttccgctg catggacctg
 960
 gacgggggacg gcgccctgtc catgttctcg ctcgagtact tctacgagga cgagtgccga
 1020
 aggtctggaca gcatggccat cgaggccctg ccttccaggg actgcctctg ccagatgctg
 1080
 gacctgggtca agccgaggac tgaagggaag atcacgctcg aggacctgaa gcgctgcaag
 1140
 ctggccaacg tcttcttctga caccttcttc aacatcgaga agtacctcga ccacgagcag
 1200
 aaagagcaga tctccctgct cagggacggg gacagcgcg gccccgagct ctcggaactgg
 1260
 gagaagtacg cggccgagga gtacgacatc ctggtggcg aggagaccgt gggagagccc
 1320
 tgggaggacg ggttcgaggg cgagctcagc cccgtggagc agaagctgag tgcgctgcgc
 1380
 tccccgctgg ccagagggcc ctcttctcg gcgccctcac cgctggggcg cggtggacctg
 1440
 tacgagtacg catgcgggga cgaggacctg gagccgctgt gacgccaccc gcgagaacgc
 1500
 cgccgcgggg ccgcccccca cgtgccacca ccggggccacc gcggtctgtg taaaaactgt
 1560
 tgtggaaaat gagtgcgttt gtacggaatg ataaactttt atttattcac agaagcgtgt
 1620
 tgattgccac tgtgggttcg tggtggacc tgcccagagc cctgtgccc ggggacacgt
 1680
 agggccgcgc gtgaatggga cgggttcccc caccgacacc ctccagcact tgccgttccc
 1740
 gaccgcgcct ggggttccgg gcctgcgtct gtgaaaggg tccatgtgcg cacaacgggt
 1800
 accgcgggct cccgggcgc tcagtcctgg acaggagcct ccaccacagg ctgtgtgaat
 1860
 gttttgtgta aacgtacaaa accgtttctg gcgatcacga aa
 1902

<210> 3082

<211> 414

<212> PRT

<213> Homo sapiens

<400> 3082

Met Asp Asp Met Gly Leu Val Ala Lys Ala Cys Gly Cys Pro Leu Tyr

1

5

10

15

Trp Lys Gly Pro Leu Phe Tyr Gly Ala Gly Gly Glu Arg Thr Gly Ser

[illegible]

```
<210> 3083
<211> 610
<212> DNA
<213> Homo sapiens
```

<400> 3083
 ngccggccca gctgctggga acctgtcagg ccctcgggct ccagtcacct gagctggcac
 60
 agggggccac cctgtgaggt gtacattgcc gtctgcaga gatccaggct gcacgcggcg
 120
 gactgggcag gccgggcccgg ggcaactggtg ggtgacagtc atacttcgtg gagccacagg
 180
 agcattcccg gcaagcacta ccaggctgtg ggtctgcacc tctggaaggt agagaagcgg
 240
 cgggtcaatc tgcctagggt cctgtccatg ccccccgttg ctggcacccg gtgccatgca
 300
 tacgaccggg aggtccacct gcgttgtag ctctcaccgg gctactacct ggctgtcccc
 360
 agcaccttcc tgaaggacgc gccaggggag ttctctgtcc gagtcttctc taccggcgca
 420
 gtctccctta ggtgagagga accgcgcagt gctgctggct ctccgaggcc acaggccctt
 480
 ccaaggcagg atttgggcac ttctccctctg tgggtggcag gtgtccatgt gggaaactgag
 540
 gccaccggga acctgtctgcc agcgcctctc catgtttgtc ttcttggcag cgccatcagg
 600
 gcagtggcca
 610

<210> 3084
 <211> 144
 <212> PRT
 <213> Homo sapiens

<400> 3084
 Xaa Arg Pro Ser Cys Trp Glu Pro Val Arg Pro Ser Gly Ser Ser His
 1 5 10 15
 Leu Ser Trp His Arg Gly Pro Pro Cys Glu Val Tyr Ile Ala Val Leu
 20 25 30
 Gln Arg Ser Arg Leu His Ala Ala Asp Trp Ala Gly Arg Ala Arg Ala
 35 40 45
 Leu Val Gly Asp Ser His Thr Ser Trp Ser Pro Ala Ser Ile Pro Gly
 50 55 60
 Lys His Tyr Gln Ala Val Gly Leu His Leu Trp Lys Val Glu Lys Arg
 65 70 75 80
 Arg Val Asn Leu Pro Arg Val Leu Ser Met Pro Pro Val Ala Gly Thr
 85 90 95
 Ala Cys His Ala Tyr Asp Arg Glu Val His Leu Arg Cys Glu Leu Ser
 100 105 110
 Pro Gly Tyr Tyr Leu Ala Val Pro Ser Thr Phe Leu Lys Asp Ala Pro
 115 120 125
 Gly Glu Phe Leu Leu Arg Val Phe Ser Thr Gly Arg Val Ser Leu Arg
 130 135 140

<210> 3085
 <211> 1080
 <212> DNA
 <213> Homo sapiens

```

<400> 3085
nntgtgcgga ggaggagttc catcattacg gtcttgcatc agataaatat ccccacttta
60
cttctccaat aagaagatat tcagatattg tagtaccctcg cttgttaatg gcagccattt
120
caaaagataa gaaaatggaa attaagggaa atctgttcag caacaaagat cttgaggaat
180
tatgcagaca tatcaacaac agaaaccaag cagcacagca ttctcagaag cagctcactg
240
agctcttcca gtgcatgtac ttcaaaagaca aagaccctcg caccgaggag cgttgcatat
300
ctgacggagt tatttattca attagaacaa atgggtgtgct tctatttata ccaaggtttg
360
ggattaaagg tgctgcttat ctaaaaaata aagatgggtt agtcacttca tgtggcccg
420
atagctgttc tgaatggaaa ccaggatccc ttcaacgatt tcaaaacaaa attacctcta
480
ctacaacaga tggggaatct gttacgttcc atttgtttga ccatgtaacc gtaagaatat
540
ccatacaggc ctcacgttgc cattctgata caatcagact tgaataatt agtaacaac
600
catacaagat accaaatata gaacttattc atcagagttc ccccttgctg aagagtgtgt
660
tagtgaaaga agtaactaaa tctgtggaag aagctcagct tgcccaagaa gtcaaaagtaa
720
acatcattca ggaggaatat caagaatatc gccaaacaaa gggaaggagc ctatacacac
780
ttctagagga gatacgggac ctacgtctcc tggatgtttc aaacaattat ggaatatgag
840
aggctcttac ttcactaaga gctgtcatat gtgaatgttt tacagtcttt tcaaaacttaa
900
catttaattg gtgtcactca gtgctctagt cgatcaggac tgggtagcta tttcgcatat
960
atgtanaaatg ttctcagcgg ggcacgggtg etcacgcctg taaccccgag actttgggag
1020
gctgagcgcg gcgcatcacg aggtcaggag attgagacca tcctggctaa cacggtgaaa
1080

```

<210> 3086

<211> 58

<212> PRT

<213> Homo sapiens

<400> 3086

```

Met Cys Val Thr Gln Cys Ser Ser Arg Ser Gly Leu Gly Ser Tyr Phe
1           5           10          15
Ala Tyr Met Xaa Asn Val Leu Ser Arg Ala Arg Trp Leu Thr Pro Val
20          25          30
Thr Pro Ala Leu Trp Glu Ala Glu Ala Gly Gly Ser Arg Gly Gln Glu
35          40          45
Ile Glu Thr Ile Leu Ala Asn Thr Val Lys
50          55

```

<210> 3087

<211> 2329

<212> DNA

<213> Homo sapiens

<400> 3087

naggagaagc atctggacga tgaggaaaga aggaagcgaa aggaagagaa gaagcggaag
60
cgagagaggg agcactgtga cacggagggg gaggtgacg actttgatcc tgggaagaag
120
gtggaggtgg agccgcccc agatcggccg gtccgagcgt gccggacaca gcagccggaa
180
atgggagcgca cccatattca gcaactcctg gaacacttcc tccgccagct tcagagaaaa
240
gatccccatg gattttttgc ttttctctgc acggatgcaa ttgctcctgg atattcaatg
300
ataataaaac atcccatgga ttttggcacc atgaaagaca aaattgtagc taatgaatac
360
aagtcagtta cggaatttaa ggcagatttc aagctgatgt gtgataatgc aatgacatac
420
aataggccag ataccgtgta ctacaagttg gcgaagaaga tccttcacgc aggctttaag
480
atgatgagca aacaggcagc tcttttgggc aatgaagata cagctgttga ggaacctgtc
540
cctgaagtgt taccagtaca agtagaaact gccaaagaa ccaaaaagcc gagtagagaa
600
gttatcagct gcatgtttga gcctgaaggg aatgcctgca gcttgacgga cagtaccgca
660
gaggagcagc tgctggcgct ggtggagcac gcagctgacg aagctcggga caggatcaac
720
cggttctctc caggcggcaa gatgggctat ctgaagagga acggggacgg gagcctgtct
780
tacagcgtgg tcaacacggc cgagccgaac gctgatgagg aggagaccca cccggtgact
840
tgagctcgct ctccagtaag ctactccag gcttcaccac gctgggcttc aaagacgaga
900
gaagaaacaa agtcaccttt ctctccagtg ccactactgc gctttcagtg cagaataatt
960
cagttatttg cgacttgaag tcggacgaga tggagctgct ctactcagcc tacggagatg
1020
agacaggcgt gcagtgtgcg ctgagcctgc aggagtttgt gaaggatgct gggagctaca
1080
gcaagaaaagt ggtggagcac ctccctggacc agatcacagg cggagaccac tctaggagcg
1140
ctttccagct gaagcagaga agaaatgttc ccatgaagcc tccagatgaa gccaaaggtg
1200
gggacaccct aggagacagc agcagctctg ttctggagtt catgtcgatg aagtctctac
1260
ccgacgtttc tgtggatac tccatgctca gctctctggg gaaggtgaag aaggagctgg
1320
accctgacga cagccatttg aacttggatg agacgacgaa gctcctcgag gacctgcagc
1380
aagcacaggc ggagcgcggc ggctctcggc cgtcgtccaa cctcagctcc ctgtccaaag
1440

cctccgagag ggaccagcac cacctgggaa gcccttctcg cctgagtgtc ggggagcagc
 1500
 cagacgtcac ccacgacccc tatgagtttc ttcagttctc agagcctgcg gcctctgcc
 1560
 agacctaaact ctgagaccacc ttcagctctt ttattttatt tttttagttt tattttgcac
 1620
 gtgtagagtt tttgtcatca gacaaggact ttgatcctgt cccctttggc atgcgggaag
 1680
 cagccgcggg gaggtaatga attgtctgtg gtatcatgtc agcagagtct ccaagcccca
 1740
 cgaaccctga ggagtgagtg catacgcgaa ggccatattg ccatcgtgtc agcagagaga
 1800
 gtctctgtac acagccccgt gaaccttgag gagggtgagc atacacgaag ggcgtgtggc
 1860
 catcgtgtca gcagagagag tctctgtaca cagccccgtg aaccttgagg agtgaggatca
 1920
 tacgcgaagg gtgtgtggcc aggtctgaga gctgcgtgcc gtttgtgtcc gagcatcacg
 1980
 tgtggctcca gcccttggtt ctgccagtgt agacacctct gtctgccccca ctgtcctggg
 2040
 gtctctcttg ggaggcacag gcattgggtg gtctggcctc attctgtatc agtccagtg
 2100
 gttcctgtca tagtttgtgt ctcccaggca ggccatggta ggggcctcgc agggggcatt
 2160
 ggggagcaca gggccaggct ggggtgagga gagtccccct gttttctgtt taattgatga
 2220
 gccctgggaaa ggagtggtgt ctgcctgccc gttacagtg agcgttccgt gtccataaaa
 2280
 cgttttctaa ctgggaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 2329

<210> 3088

<211> 280

<212> PRT

<213> Homo sapiens

<400> 3088

Xaa	Glu	Lys	His	Leu	Asp	Asp	Glu	Glu	Arg	Arg	Lys	Arg	Lys	Glu	Glu
1			5						10					15	
Lys	Lys	Arg	Lys	Arg	Glu	Arg	Glu	His	Cys	Asp	Thr	Glu	Gly	Glu	Ala
			20					25					30		
Asp	Asp	Phe	Asp	Pro	Gly	Lys	Lys	Val	Glu	Val	Glu	Pro	Pro	Asp	
			35				40					45			
Arg	Pro	Val	Arg	Ala	Cys	Arg	Thr	Gln	Gln	Pro	Glu	Met	Glu	Arg	Thr
			50				55				60				
His	Ile	Gln	Gln	Leu	Leu	Glu	His	Phe	Leu	Arg	Gln	Leu	Gln	Arg	Lys
65				70					75					80	
Asp	Pro	His	Gly	Phe	Phe	Ala	Phe	Pro	Val	Thr	Asp	Ala	Ile	Ala	Pro
				85					90				95		
Gly	Tyr	Ser	Met	Ile	Ile	Lys	His	Pro	Met	Asp	Phe	Gly	Thr	Met	Lys
			100				105					110			
Asp	Lys	Ile	Val	Ala	Asn	Glu	Tyr	Lys	Ser	Val	Thr	Glu	Phe	Lys	Ala
			115				120					125			
Asp	Phe	Lys	Leu	Met	Cys	Asp	Asn	Ala	Met	Thr	Tyr	Asn	Arg	Pro	Asp

130		135		140
Thr Val Tyr Tyr Lys Leu Ala Lys Lys Ile Leu His Ala Gly Phe Lys				
145		150		155
Met Met Ser Lys Gln Ala Ala Leu Leu Gly Asn Glu Asp Thr Ala Val				
		165		170
Glu Glu Pro Val Pro Glu Val Val Pro Val Gln Val Glu Thr Ala Lys				
		180		185
Lys Ser Lys Lys Pro Ser Arg Glu Val Ile Ser Cys Met Phe Glu Pro				
		195		200
Glu Gly Asn Ala Cys Ser Leu Thr Asp Ser Thr Ala Glu Glu His Val				
		210		215
Leu Ala Leu Val Glu His Ala Ala Asp Glu Ala Arg Asp Arg Ile Asn				
		225		230
Arg Phe Leu Pro Gly Gly Lys Met Gly Tyr Leu Lys Arg Asn Gly Asp				
		245		250
Gly Ser Leu Leu Tyr Ser Val Val Asn Thr Ala Glu Pro Asn Ala Asp				
		260		265
Glu Glu Glu Thr His Pro Val Thr				270
		275		280

<210> 3089

<211> 722

<212> DNA

<213> Homo sapiens

<400> 3089

ncagcttttg accaagcgac catgagaggg ccagagctcg ggcccgaaac cagcatggag
 60
 ggagacgtgc tggacacact ggagcgctg ggggtataaag gaccattgtt agaagagcaa
 120
 gcccttacaa aggcggcaga ggggtgatta tcttcacctg aattttcaga gctctgtatt
 180
 tggttaggct ctcaaataaa atcattatgc aacttgggaag aaagtatcac gtctgctggg
 240
 agagatgacc tagagagctt ccagcttgag ataagtgggt ttttaaaaga gatggcctgt
 300
 ccatactcgg tactcgtctc aggagacatt aaagagcgcc tcacaaagaa ggatgactgc
 360
 ttgaaacttc tgttggtttt aagtacagaa cttcaagctt tacaaatatt acagacaag
 420
 aaacataaaa attctcaatt agataaaaat agtgaagttt atcaggaagt tcaagctatg
 480
 tttgatacac ttggtatacc caagtcaaca acttctgaca ttccgcata gctaaaccaa
 540
 gtggaatcaa aggtgaaaga tattctctca aaggtccaga aaaatcatgt gggaaaacca
 600
 ctactgaaaa tggattttaa ttcagaacag gcggaacaac tggaaagaat caatgatgct
 660
 ctttctgtg aatatgagtg ccgccgacga atgttaatga aacgattaga tgtgactgta
 720
 ca
 722

<210> 3090

<211> 240
 <212> PRT
 <213> Homo sapiens

<400> 3090

```

Xaa Ala Leu Asp Gln Ala Thr Met Arg Gly Pro Glu Leu Gly Pro Glu
 1           5           10           15
Thr Ser Met Glu Gly Asp Val Leu Asp Thr Leu Glu Ala Leu Gly Tyr
          20           25           30
Lys Gly Pro Leu Leu Glu Glu Gln Ala Leu Thr Lys Ala Ala Glu Gly
          35           40           45
Gly Leu Ser Ser Pro Glu Phe Ser Glu Leu Cys Ile Trp Leu Gly Ser
          50           55           60
Gln Ile Lys Ser Leu Cys Asn Leu Glu Glu Ser Ile Thr Ser Ala Gly
65           70           75           80
Arg Asp Asp Leu Glu Ser Phe Gln Leu Glu Ile Ser Gly Phe Leu Lys
          85           90           95
Glu Met Ala Cys Pro Tyr Ser Val Leu Val Ser Gly Asp Ile Lys Glu
          100          105          110
Arg Leu Thr Lys Lys Asp Asp Cys Leu Lys Leu Leu Phe Leu Ser
          115          120          125
Thr Glu Leu Gln Ala Leu Gln Ile Leu Gln Asn Lys Lys His Lys Asn
          130          135          140
Ser Gln Leu Asp Lys Asn Ser Glu Val Tyr Gln Glu Val Gln Ala Met
145          150          155          160
Phe Asp Thr Leu Gly Ile Pro Lys Ser Thr Thr Ser Asp Ile Pro His
          165          170          175
Met Leu Asn Gln Val Glu Ser Lys Val Lys Asp Ile Leu Ser Lys Val
          180          185          190
Gln Lys Asn His Val Gly Lys Pro Leu Leu Lys Met Asp Leu Asn Ser
          195          200          205
Glu Gln Ala Glu Gln Leu Glu Arg Ile Asn Asp Ala Leu Ser Cys Glu
          210          215          220
Tyr Glu Cys Arg Arg Arg Met Leu Met Lys Arg Leu Asp Val Thr Val
225          230          235          240

```

<210> 3091
 <211> 333
 <212> DNA
 <213> Homo sapiens

<400> 3091

```

acgcgtgaag gggcgagg ggaaggaagc cctggggagc agctgctcac ccccttgcca
60
caccatcttg gctcggcagg ggtctgggac tgacagggag caccctcagg ccttggtacc
120
ccagggcgca cccctctctg caagtgtccc aaaatgattg ctaaatgcct ggctccccca
180
ctctttgact ccatctcttg gttccctctt tctgctgcca gtcctcccca ctctccctg
240
gggaactcct tttgtgtccc ccttctcccc tgcctcactt gccaggcaga tccctttttc
300
ttccataccc atccctgcct cctgctcgg ccg
333

```


<210> 3092
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 3092
 Met Gly Met Glu Glu Lys Gly Ile Cys Leu Ala Val Gly Ala Gly Glu
 1 5 10 15
 Lys Gly Asp Thr Lys Arg Ser Pro Gln Gly Arg Val Gly Gly Ala Gly
 20 25 30
 Ser Arg Lys Arg Glu Pro Arg Asp Gly Val Lys Glu Trp Gly Ser Gln
 35 40 45
 Ala Phe Ser Asn His Phe Gly Thr Leu Gly Arg Arg Gly Arg Pro Gly
 50 55 60
 Gly Thr Lys Gly Leu Gly Cys Ser Leu Ser Val Pro Asp Pro Cys Gln
 65 70 75 80
 Ala Lys Met Val Trp Gln Arg Gly Glu Gln Leu Leu Pro Arg Ala Ser
 85 90 95
 Phe Pro Ser Ala Pro Phe Thr Arg
 100

<210> 3093
 <211> 720
 <212> DNA
 <213> Homo sapiens

<400> 3093
 nnaccggttt gtccaaggag gctggcctga ccacttacag cctgtccctg gctctgggtg
 60
 gaggagcatt aggccagct cagggtcctc tggtctcaga gccagctggc gtgggcatcc
 120
 agggggcagc ctgtgggcag tgactctgtc tgtctttgga caggacaagg actgccatcc
 180
 accatgggta agctgggctg cagcttctct gggaagccag gtaaagaccg tggggaccag
 240
 gatggggctg ccatggacag tgtgcctctg atcagccctc tggacatcag ccagctccag
 300
 ccggcactcc ctgaccaggt ggtcatcaag acacagacag aataccagct gtcctcccca
 360
 gaccagcaga atttccctga cctggagggc cagaggctga actgcagcca cccagaggaa
 420
 gggcgccaggc tgcccaccgc acgggatgac gccttcgcca tggcgctact gggctgcgtg
 480
 ctgacatgt acaaggccat ctgggtacgac cagttcacct gccccagcg ctctctgctg
 540
 cggcacaaga tctgcacgcc gctgaccctg gagatgtact acacggagat ggaccccgag
 600
 cgccaccgca gcactctggc ggccatcggg gcctaccgca tgagccgcaa gcacggcagc
 660
 ggacgcccgg cggcctgggg ggacgggtac cgcgacgcca aggaggagcg caagggggccc
 720

<210> 3094

<211> 179

<212> PRT

<213> Homo sapiens

<400> 3094

```

Met Val Lys Leu Gly Cys Ser Phe Ser Gly Lys Pro Gly Lys Asp Pro
 1           5           10           15
Gly Asp Gln Asp Gly Ala Ala Met Asp Ser Val Pro Leu Ile Ser Pro
 20           25           30
Leu Asp Ile Ser Gln Leu Gln Pro Pro Leu Pro Asp Gln Val Val Ile
 35           40           45
Lys Thr Gln Thr Glu Tyr Gln Leu Ser Ser Pro Asp Gln Gln Asn Phe
 50           55           60
Pro Asp Leu Glu Gly Gln Arg Leu Asn Cys Ser His Pro Glu Glu Gly
 65           70           75           80
Arg Arg Leu Pro Thr Ala Arg Met Ile Ala Phe Ala Met Ala Leu Leu
 85           90           95
Gly Cys Val Leu Ile Met Tyr Lys Ala Ile Trp Tyr Asp Gln Phe Thr
100           105           110
Cys Pro Asp Gly Phe Leu Leu Arg His Lys Ile Cys Thr Pro Leu Thr
115           120           125
Leu Glu Met Tyr Tyr Thr Glu Met Asp Pro Glu Arg His Arg Ser Ile
130           135           140
Leu Ala Ala Ile Gly Ala Tyr Pro Leu Ser Arg Lys His Gly Thr Glu
145           150           155           160
Thr Pro Ala Ala Trp Gly Asp Gly Tyr Arg Ala Ala Lys Glu Glu Arg
165           170           175
Lys Gly Pro

```

<210> 3095

<211> 519

<212> DNA

<213> Homo sapiens

<400> 3095

```

ggtagggattt caccggcaca ttcatgtacc catagcgggtg ctcatgtcac acgtggacgg
 60
agacccccagc agcaggccctc agctcatgtg actcggccct ctaagaggcc cagcaagata
120
gggtttgacg aggtctttgt catcagcctg gctcgcaggc ctgaccgtcg ggaacgcatg
180
ctgcctcgc tctgggagat ggagatctct gggaggggtg tggatgctgt ggatggctgg
240
atgctcaaca gcagtgccat caggaacctc ggcgtagacc tgctcccggt ctaccaggac
300
cctactcgg gccgcactct gaccaagggc gaggtggggt gcttctctcag ccattactcc
360
atctgggaag agcgagcagt acaaggcaca cttctggcca cgggacctgg tggccttctc
420
cgcccgagccc ctgctcgtcg ccctaccca ctatgccggg gacgccgagt ggctcagtga
480
cagcgagaca tccttcccat gggatgatgc cagcggccg
519

```

<210> 3096
 <211> 159
 <212> PRT
 <213> Homo sapiens

<400> 3096
 Gly Gly Ile Ser Pro Ala His Ser Cys Thr His Ser Gly Ala His Cys
 1 5 10 15
 Thr Arg Gly Arg Arg Pro Gln Gln Ala Ser Ala His Val Thr Arg
 20 25 30
 Pro Ser Lys Arg Pro Ser Lys Ile Gly Phe Asp Glu Val Phe Val Ile
 35 40 45
 Ser Leu Ala Arg Arg Pro Asp Arg Arg Glu Arg Met Leu Ala Ser Leu
 50 55 60
 Trp Glu Met Glu Ile Ser Gly Arg Val Val Asp Ala Val Asp Gly Trp
 65 70 75 80
 Met Leu Asn Ser Ser Ala Ile Arg Asn Leu Gly Val Asp Leu Leu Pro
 85 90 95
 Gly Tyr Gln Asp Pro Tyr Ser Gly Arg Thr Leu Thr Lys Gly Glu Val
 100 105 110
 Gly Cys Phe Leu Ser His Tyr Ser Ile Trp Glu Glu Arg Ala Val Gln
 115 120 125
 Gly Thr Leu Leu Ala Thr Gly Pro Gly Gly Leu Leu Arg Pro Ala Pro
 130 135 140
 Ala Arg Cys Pro Tyr Pro Leu Cys Arg Gly Arg Arg Val Ala Gln
 145 150 155

<210> 3097
 <211> 4953
 <212> DNA
 <213> Homo sapiens

<400> 3097
 aggcattccag gatcggtgc ggggcccgc ggtgcccccc cgcgccgtca cggcagccgc
 60
 ggcggccgag gggaccgggc cagggccggg ggcggcggcc cgagccgcgg tagcggcggc
 120
 ggcgggaggg gcggcctgag ggcggacggg cgggcgcccg ggttcggggg gtcggtgcc
 180
 gctccgcact gcccgccgg tctcggcccc ggcgccatga gtggcgccgg cggcggaggg
 240
 ggctcggcgc ccagtcgctt cgccgactac ttgtcatct gcggactgga caccggagacc
 300
 gggctggagc cggacgagct gtcggcatta tgcagatca tacaggcttc taaagccagg
 360
 gatcgtgccca gccctttcat ttcaagtacg actgaaggag aaaattttga gcagacacca
 420
 ttgagaagaa cattcaaato taaggctcct gcaagatata ctgagaacgt agaattggaat
 480
 ccctttgacc aagatgcagt aggaatgcta tgtatgcga aagggtggc attcaagacc
 540
 caggctgac ccagggagcc ccaattccat gcctttatta tcacaaggga ggaatggctct
 600

cggacatttg ggtttgccct cacattttat gaagagggtga ctagcaagca gatctgcagt
660
gcaatgcaga cectctacca catgcacaat gctgagtatg atgtcctaca tgctccccct
720
gctgatgaca gagaccagag cagcatggag gatggtgaag acactcctgt gaccaaactg
780
cagcgcttca actcctatga cattagccgg gacactctct acgtctctaa gtgcatctgc
840
ctcatcacac ccatgtcttt catgaaggca tgctggagcg tgccgggcca actccaccag
900
gcagtcaact cacctcagcc cctccactg ccccttgaga gctacatata caacgtactc
960
tacgaggtgc cgctccacc tcttggccgg tcttgaagt tttctggggg ctattggcca
1020
ataatctgcc agagaccaag taccaatgag ctccccctat ttgactttcc tgtcaagag
1080
gtttttgaac tgctcggggg ggagaatgtg tttcagcttt tttactgtgc cctctgggag
1140
tttcaaatcc tgctctactc acagcattac cagagactga tgactgtggc ggagacgatt
1200
acagctctca tgttttcttt ccagtggcag catgtctatg tccctattct cccagcttct
1260
ctcctgcatt tcttagatgc tctgttcca tacctgatgg gtttgcattc caatggcctg
1320
gatgaccggt caaagctgga gctgcctcaa gaggctaacc tctgctttgt ggacattgac
1380
aaccacttca ttgagttgcc agaggacttg ccacagttcc ccaacaaatt ggagtttgtc
1440
cagggaagtct ctgagattct catggcattt ggaattcccc ctgaagggaa tcttcattgc
1500
agtgaagtg cctccaagct gaagaggctg cgggcctctg agcttgtctc ggacaagagg
1560
aatgggaaca ttgctggctc ccctttgcat tctacgagc ttcttaagga gaatgaaact
1620
attgcccggc tgcaagcctt ggtcaagaga actgggggtga gcctggaaaaa gttggaagt
1680
cgtgaagacc ccagcagcaa taagatctc aaagttcagt gtgatgaaga agaactcagg
1740
atttaccagc taaacattca gatccgggaa gtttttgcaa atcgtttcac tcagatgttt
1800
gcagattatg aggtgtttgt catccaacc agccaggata aggaatcctg gtttccaac
1860
agggaagaaa tgcaaaactt tgataaagca tcttttctgt cagatcagcc tgagccctac
1920
ctgcccttcc tctcaagatt cctggagacc cagatgtttg catttttcat tgacaacaaa
1980
ataatgtgtc atgatgatga tgataaagac cctgtactcc ggggtattga tccccgatt
2040
gacaagatca ggctgttgaa tgttcggaca cctactctcc gtacatccat gtaccagaag
2100
tgtaccactg tggatgaagc agagaaaagca attgagctgc gtctggcaaa aattgaccat
2160
actgcaattc acccacattt acttgacatg aagattggac aagggaataa tgagccgggc
2220

ttcttcccta agctgcagtc tgatgtactt tgcactgggc cagccagcaa caagtggaca
2280
aaaagggaatg cccctgcaca gtggaggcgg aaagaccggc agaagcagca cacagaacac
2340
ttgcgccttag acaatgacca gagagagaag tacatccagg aagccaggac tatgggcagc
2400
actatccgcc agcccaaaact gtccaacctc tctccatcag tgattgccca gaccaattgg
2460
aagtttgttag agggcctgct gaaggaatgc cgcaataaga ccaagaggat gctggtggaa
2520
aagatgggcc gagaagctgt ggagctaggg catggggagg tgaacatcac aggggtggaa
2580
gagaacaccc tgattgccag ccttttgtgat ctccctgaaa ggatctggag tcatggacta
2640
caagtgaaac aggggaaatc agccttatgg tcccacctgt tacattatca ggacaaccgg
2700
cagagaaaac tcacatcagg aagcctcagt acctcaggaa tacttcttga ttcagaacgt
2760
aggaagtctg atgccagctc actcatgcct cccctgagga tctccctgat tcaggatatg
2820
aggcacatcc agaacatcgg ggaatcaag actgatgtgg gaaaggccag agcatgggtg
2880
cgactgtcca tggaaaaaaa gttactttcc agacacctga agcagctcct ctcagaccat
2940
gagctcacca aaaagtata taagcgctat gccttctgct gctgtgatga cgagaaggag
3000
cagttcctct atcacctcct gtctttcaat gccgtcgatt acctttgctt caccaatgtc
3060
ttcacaaact tcctgatccc gtaccacatt ctgatctgac caagcaagaa gctggggggc
3120
tccatgttca ctgccaaccc atggatctgt atatcaggag aattgggtga gacacagatc
3180
atgcagattc ccaggaatgt gctagagatg accttcgagt gccagaactt ggggaagctt
3240
actactgtcc agattggcca tgataactct gggctgtatg ccaaatggct ggttgagtat
3300
gtgatgggtca ggaatgagat cacaggacat acctacaagt tccggtgtgg ccggtgggtta
3360
gggaaggggc tggatgatgg aagcctggag cggatcctag ttggggagct gctcacatcc
3420
cagcctgagg tggatgagag gccatgccgg accccgccgc tgcagcagtc ccccatgttc
3480
atccggaggc ttgttaccat ctcaaccaac aacaagccca agctgaacac tgggcagatc
3540
caggagtcca tcggggaggc agtcaatggc attgtgaagc acttccataa gcctgagaaa
3600
gagcgaggca gtctgacgct gttgctctgt ggagagtgtg gccttgcttc ggccttgaaa
3660
cagcctttcc agcatggatt taaatcgccc cggctcttca aaaatgtctt catttgggat
3720
ttcttgaaa aagcacaaac ctattatgag acattagaga agaataagat agtccctgag
3780
gaaaactggc atacaagagc ccggaacttc tgcogatttg tcaactgcaat caacaatact
3840

ccccggaaca tcggcaagga tggcaagttt cagatgctgg tgtgcttggg agccagagat
3900
cactctctac accactggat tgccctgctg gctgactgcc ccatcactgc acacatgtat
3960
gaggatgtgg cactgatcaa agaccataca cttgtcaatt ccttgattcg tgtgtgcgcg
4020
acattgcagg agttcaacat cacgctggag acgtcccttg tcaagggcat cgacatctga
4080
ctcccagca ccagccagca gcaggactga gaaagactca cctgcgagct ctgacctttt
4140
ttcccaaagg gacttaagcg attgtgcagg agtaggagac aaaatgtaca ctcactgtaa
4200
aaagaaaact agaggatttt tggataaat aatctatatt agagtttatt tgetgatttg
4260
ctttttacac actttcatgt gaaagagtga taggggaggg gagcgaggct ggtgcgcggt
4320
attttgaagc tgggtgcctc cctgcgcgtg gccacatgct ggaagcctga ggcctccctg
4380
gactgagcct gtggcactgc gtgcgggaca gttatgttcc ctgccccgt cgcattaatg
4440
aggcccttcc acatcatttt taaactaatg tttttctata ttaacattat tatggatatt
4500
tggctttcat agggccacaca cagggtgtgt gcgcgggaag ccccatgctc caatcaaaagg
4560
gatttttagt agtgctctca agcaagcacc gatgagtcag tcccacgtat tttttttttt
4620
gtcagtattg tttgggaagg agacatgccg ggatgtgtca tcgtgccaaa taccacattt
4680
cctgttggca cagtttcaca gaagtaaaca taagcatggt ttaacagggt ttttttttct
4740
tttttctttt ttaaaatggt ttattttatt aaccgccat tgtgtgtttt taagtatttt
4800
ctttttttaa ggaaaggaaa agcttgtcac aatctaactg gctatgttat tattattaaa
4860
tttatgtttt gcaacttaga aaccagctac agtatggccc acttaataaa acacctgaaa
4920
caaaaaaaaa aaaaaaaaaa aaaaaaaaaa aat
4953

<210> 3098

<211> 1359

<212> PRT

<213> Homo sapiens

<400> 3098

Arg	His	Pro	Gly	Cys	Gly	Ala	Gly	Arg	Pro	Gly	Ala	Pro	Pro	Pro	Arg
1			5					10					15		
His	Gly	Ser	Arg	Gly	Gly	Arg	Gly	Asp	Arg	Ala	Arg	Ala	Gly	Gly	Gly
		20						25					30		
Gly	Pro	Ser	Arg	Gly	Ser	Gly	Gly	Gly	Arg	Gly	Gly	Leu	Arg	Ala	
		35					40					45			
Asp	Gly	Arg	Ala	Pro	Gly	Leu	Arg	Gly	Leu	Gly	Ala	Ala	Pro	His	Cys
		50				55				60					
Pro	Ala	Gly	Leu	Gly	Pro	Gly	Ala	Met	Ser	Gly	Gly	Gly	Gly	Gly	Gly

65		70		75		80
Gly Ser Ala Pro Ser Arg Phe Ala Asp Tyr Phe Val Ile Cys Gly Leu						
	85			90		95
Asp Thr Glu Thr Gly Leu Glu Pro Asp Glu Leu Ser Ala Leu Cys Gln						
	100			105		110
Tyr Ile Gln Ala Ser Lys Ala Arg Asp Gly Ala Ser Pro Phe Ile Ser						
	115		120		125	
Ser Thr Thr Glu Gly Glu Asn Phe Glu Gln Thr Pro Leu Arg Arg Thr						
	130		135		140	
Phe Lys Ser Lys Val Leu Ala Arg Tyr Pro Glu Asn Val Glu Trp Asn						
	145		150		155	160
Pro Phe Asp Gln Asp Ala Val Gly Met Leu Cys Met Pro Lys Gly Leu						
	165		170			175
Ala Phe Lys Thr Gln Ala Asp Pro Arg Glu Pro Gln Phe His Ala Phe						
	180		185			190
Ile Ile Thr Arg Glu Asp Gly Ser Arg Thr Phe Gly Phe Ala Leu Thr						
	195		200			205
Phe Tyr Glu Glu Val Thr Ser Lys Gln Ile Cys Ser Ala Met Gln Thr						
	210		215		220	
Leu Tyr His Met His Asn Ala Glu Tyr Asp Val Leu His Ala Pro Pro						
	225		230		235	240
Ala Asp Asp Arg Asp Gln Ser Ser Met Glu Asp Gly Glu Asp Thr Pro						
	245		250			255
Val Thr Lys Leu Gln Arg Phe Asn Ser Tyr Asp Ile Ser Arg Asp Thr						
	260		265			270
Leu Tyr Val Ser Lys Cys Ile Cys Leu Ile Thr Pro Met Ser Phe Met						
	275		280			285
Lys Ala Cys Arg Ser Val Pro Gly Gln Leu His Gln Ala Val Thr Ser						
	290		295			300
Pro Gln Pro Pro Pro Leu Pro Leu Glu Ser Tyr Ile Tyr Asn Val Leu						
	305		310		315	320
Tyr Glu Val Pro Leu Pro Pro Pro Gly Arg Ser Leu Lys Phe Ser Gly						
	325		330			335
Val Tyr Trp Pro Ile Ile Cys Gln Arg Pro Ser Thr Asn Glu Leu Pro						
	340		345			350
Leu Phe Asp Phe Pro Val Lys Glu Val Phe Glu Leu Leu Gly Val Glu						
	355		360			365
Asn Val Phe Gln Leu Phe Thr Cys Ala Leu Leu Glu Phe Gln Ile Leu						
	370		375			380
Leu Tyr Ser Gln His Tyr Gln Arg Leu Met Thr Val Ala Glu Thr Ile						
	385		390		395	400
Thr Ala Leu Met Phe Pro Phe Gln Trp Gln His Val Tyr Val Pro Ile						
	405		410			415
Leu Pro Ala Ser Leu Leu His Phe Leu Asp Ala Pro Val Pro Tyr Leu						
	420		425			430
Met Gly Leu His Ser Asn Gly Leu Asp Asp Arg Ser Lys Leu Glu Leu						
	435		440			445
Pro Gln Glu Ala Asn Leu Cys Phe Val Asp Ile Asp Asn His Phe Ile						
	450		455			460
Glu Leu Pro Glu Asp Leu Pro Gln Phe Pro Asn Lys Leu Glu Phe Val						
	465		470		475	480
Gln Glu Val Ser Glu Ile Leu Met Ala Phe Gly Ile Pro Pro Glu Gly						
	485		490			495
Asn Leu His Cys Ser Glu Ser Ala Ser Lys Leu Lys Arg Leu Arg Ala						

500					505					510				
Ser	Glu	Leu	Val	Ser	Asp	Lys	Arg	Asn	Gly	Asn	Ile	Ala	Gly	Pro
515					520					525				
Leu	His	Ser	Tyr	Glu	Leu	Leu	Lys	Glu	Asn	Glu	Thr	Ile	Ala	Arg
530					535					540				
Gln	Ala	Leu	Val	Lys	Arg	Thr	Gly	Val	Ser	Leu	Glu	Lys	Leu	Val
545					550					555				
Arg	Glu	Asp	Pro	Ser	Ser	Asn	Lys	Asp	Leu	Lys	Val	Gln	Cys	Asp
565					570					575				
Glu	Glu	Leu	Arg	Ile	Tyr	Gln	Leu	Asn	Ile	Gln	Ile	Arg	Glu	Val
580					585					590				
Ala	Asn	Arg	Phe	Thr	Gln	Met	Phe	Ala	Asp	Tyr	Glu	Val	Phe	Ile
595					600					605				
Gln	Pro	Ser	Gln	Asp	Lys	Glu	Ser	Trp	Phe	Thr	Asn	Arg	Glu	Gln
610					615					620				
Gln	Asn	Phe	Asp	Lys	Ala	Ser	Phe	Leu	Ser	Asp	Gln	Pro	Glu	Pro
625					630					635				
Leu	Pro	Phe	Leu	Ser	Arg	Phe	Leu	Glu	Thr	Gln	Met	Phe	Ala	Phe
645					650					655				
Ile	Asp	Asn	Lys	Ile	Met	Cys	His	Asp	Asp	Asp	Asp	Lys	Asp	Pro
660					665					670				
Leu	Arg	Val	Phe	Asp	Ser	Arg	Val	Asp	Lys	Ile	Arg	Leu	Leu	Val
675					680					685				
Arg	Thr	Pro	Thr	Leu	Arg	Thr	Ser	Met	Tyr	Gln	Lys	Cys	Thr	Thr
690					695					700				
Asp	Glu	Ala	Glu	Lys	Ala	Ile	Glu	Leu	Arg	Leu	Ala	Lys	Ile	Asp
705					710					715				
Thr	Ala	Ile	His	Pro	His	Leu	Leu	Asp	Met	Lys	Ile	Gly	Gln	Gly
725					730					735				
Tyr	Glu	Pro	Gly	Phe	Phe	Pro	Lys	Leu	Gln	Ser	Asp	Val	Leu	Cys
740					745					750				
Gly	Pro	Ala	Ser	Asn	Lys	Trp	Thr	Lys	Arg	Asn	Ala	Pro	Ala	Gln
755														

930	935	940
Asn Ile Gly Glu Ile Lys Thr Asp Val Gly Lys Ala Arg Ala Trp Val		
945	950	955
Arg Leu Ser Met Glu Lys Lys Leu Leu Ser Arg His Leu Lys Gln Leu		960
	965	970
Leu Ser Asp His Glu Leu Thr Lys Lys Leu Tyr Lys Arg Tyr Ala Phe		975
	980	985
Leu Arg Cys Asp Asp Glu Lys Glu Gln Phe Leu Tyr His Leu Leu Ser		990
	995	1000
Phe Asn Ala Val Asp Tyr Phe Cys Phe Thr Asn Val Phe Thr Thr Ile		1005
	1010	1015
Leu Ile Pro Tyr His Ile Leu Ile Val Pro Ser Lys Lys Leu Gly Gly		1020
	1025	1030
Ser Met Phe Thr Ala Asn Pro Trp Ile Cys Ile Ser Gly Glu Leu Gly		1035
	1045	1050
Glu Thr Gln Ile Met Gln Ile Pro Arg Asn Val Leu Glu Met Thr Phe		1055
	1060	1065
Glu Cys Gln Asn Leu Gly Lys Leu Thr Thr Val Gln Ile Gly His Asp		1070
	1075	1080
Asn Ser Gly Leu Tyr Ala Lys Trp Leu Val Glu Tyr Val Met Val Arg		1085
	1090	1095
Asn Glu Ile Thr Gly His Thr Tyr Lys Phe Pro Cys Gly Arg Trp Leu		1100
	1105	1110
Gly Lys Gly Met Asp Asp Gly Ser Leu Glu Arg Ile Leu Val Gly Glu		1115
	1125	1130
Leu Leu Thr Ser Gln Pro Glu Val Asp Glu Arg Pro Cys Arg Thr Pro		1135
	1140	1145
Pro Leu Gln Gln Ser Pro Ser Val Ile Arg Arg Leu Val Thr Ile Ser		1150
	1155	1160
Pro Asn Asn Lys Pro Lys Leu Asn Thr Gly Gln Ile Gln Glu Ser Ile		1165
	1170	1175
Gly Glu Ala Val Asn Gly Ile Val Lys His Phe His Lys Pro Glu Lys		1180
	1185	1190
Glu Arg Gly Ser Leu Thr Leu Leu Leu Cys Gly Glu Cys Gly Leu Val		1195
	1205	1210
Ser Ala Leu Glu Gln Ala Phe Gln His Gly Phe Lys Ser Pro Arg Leu		1215
	1220	1225
Phe Lys Asn Val Phe Ile Trp Asp Phe Leu Glu Lys Ala Gln Thr Tyr		1230
	1235	1240
Tyr Glu Thr Leu Glu Lys Asn Glu Val Val Pro Glu Glu Asn Trp His		1245
	1250	1255
Thr Arg Ala Arg Asn Phe Cys Arg Phe Val Thr Ala Ile Asn Asn Thr		1260
	1265	1270
Pro Arg Asn Ile Gly Lys Asp Gly Lys Phe Gln Met Leu Val Cys Leu		1275
	1285	1290
Gly Ala Arg Asp His Leu Leu His His Trp Ile Ala Leu Leu Ala Asp		1295
	1300	1305
Cys Pro Ile Thr Ala His Met Tyr Glu Asp Val Ala Leu Ile Lys Asp		1310
	1315	1320
His Thr Leu Val Asn Ser Leu Ile Arg Val Leu Gln Thr Leu Gln Glu		1325
	1330	1335
Phe Asn Ile Thr Leu Glu Thr Ser Leu Val Lys Gly Ile Asp Ile		1340
	1345	1350
		1355

<210> 3099

<211> 1001

<212> DNA

<213> Homo sapiens

<400> 3099

```

nccatggttag tggcaattta tgcctattac aagaaacaga gaacaaaac agatgtgtac
60
atcctgaatt tggctgtagc agatttactc ctctatttca ctctgccttt ttgggctgtt
120
aatgcagttc atgggtgggt tttagggaataa ataatgtgca aaataacttc agccttgtac
180
acactaaact ttgtctctgg aatgcagttt ctggcttcta tcagcataga cagatatgtg
240
gcagtaacta aagtcctccag ccaatcagga gtgggaaac catgctggat catctgtttc
300
tgtgtctgga tggctgccat ctgtctgagc ataccctcagc tggtttttta tacagtaaat
360
gacaatgcta ggtgcatttc cattttcccc cgctacctag gaacatcaat gaaagcattg
420
attcacatgc tagagatctg cattgggattt gtagtaccct ttctatttat ggggggtgtga
480
tactttatca cagcaaggac actcatgaag atgccaaaca ttaaaatatc tcgaccctta
540
aaagttctgc tcacagtcgt tatagttttc attgtcactc aactgcctta taacattgtc
600
aagttctgcc gagccataga catcatctac tccctgatca ccagctgcaa catgagcaaa
660
cgcatggaca tcgccatcca agtcacagaa agcatcgcac tctttcacag ctgcctcaac
720
ccaatccttt atgtttttat gggagcatct ttcaaaaact acgttatgaa agtggccaag
780
aaatatgggt cctggagaag acagagacaa agtgtggagg agtttccttt tgattctgag
840
ggtcctacag agccaaccag tacttttagc attttaaagg aaaactgctc tgccttttgc
900
ttggatacat atgaatgatg ctttcccctc aaataaaaca tctgcattat tctgaaactc
960
aaatctcaga cgccgtgggt gcaacttata ataaagaatg g
1001

```

<210> 3100

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3100

```

Xaa Met Val Val Ala Ile Tyr Ala Tyr Tyr Lys Lys Gln Arg Thr Lys
1           5           10          15
Thr Asp Val Tyr Ile Leu Asn Leu Ala Val Ala Asp Leu Leu Leu Leu
20          25          30
Phe Thr Leu Pro Phe Trp Ala Val Asn Ala Val His Gly Trp Val Leu
35          40          45
Gly Lys Ile Met Cys Lys Ile Thr Ser Ala Leu Tyr Thr Leu Asn Phe

```

50		55		60
Val Ser Gly Met Gln Phe	Leu Ala Cys Ile Ser	Ile Asp Arg Tyr Val		
65	70	75	80	
Ala Val Thr Lys Val Pro	Ser Gln Ser Gly Val	Gly Lys Pro Cys Trp		
	85	90	95	
Ile Ile Cys Phe Cys Val	Trp Met Ala Ala Ile	Leu Leu Ser Ile Pro		
	100	105	110	
Gln Leu Val Phe Tyr Thr	Val Asn Asp Asn Ala	Arg Cys Ile Pro Ile		
	115	120	125	
Phe Pro Arg Tyr Leu Gly	Thr Ser Met Lys Ala	Leu Ile His Met Leu		
	130	135	140	
Glu Ile Cys Ile Gly Phe	Val Val Pro Phe Leu	Ile Met Gly Val		
145	150	155		

<210> 3101

<211> 2623

<212> DNA

<213> Homo sapiens

<400> 3101

cggcgccgag tagccgggccc gggccggagc gcgggcccgg cggaggcagc tgcgcccggc
 60
 tcctccctc ccaggccccc ccccccgccc gggcccggc gatggtgaca catgcgccgg
 120
 cggccgcgcg gcaggacat ggttgagcgc gccagcaagt tcgtgctggt ggtggcgggc
 180
 tcggtgtgct tcattgctcat ctgtaccag tacgcccccc caggactgag cctggcgcg
 240
 ccggcgggcc gcgcgcgcgc cgacgacctg gacctgttcc ccacaccgga cccccactac
 300
 gagaagaagt actacttccc ggtccgcgag ctggagcgct cgctgcgctt cgacatgaag
 360
 ggcgacgacg tgatcgtctt cctgcacatc cagaagacgg gcggcaccac ctcggccgc
 420
 cacctcgtgc agaactgacg cctcgagggt ccgtgcgact gccggcccg cagaagaag
 480
 tgcacctgct accgcccac cgcgcgcgag acttggtctt tctcccgctt ctcaccggc
 540
 tggagctgcg ggtgcacgc cgactggacc gagctcacca actgctgccc cggcgtgctg
 600
 gaccgcccgc actccgcccgc gctgcgcacg cccaggaagt tctactacat cacctgtcta
 660
 cgagaccocg tgtcccgccta cctgagcgag tggcgccatg tgcagagggg tgccacgtgg
 720
 aagacgtctt tgcatatgtg tgatggggcg acgcccacgc ctgaggagct gccgcctgc
 780
 tacgagggga cggactggtc gggctgcacg ctacaggagt tcattggaact cccgtacaac
 840
 ctggccaaca accgccaggt gcgcatgctg gccgacctga gcctgggtggg ctgtacaaac
 900
 ctgtccttca tccccgaggg caagcggggc cagctgtcgc tcgagagcgc caagaagaac
 960
 ctgcggggga tggcctctct cggcctgacc gattccagc gcaagacgca gtacctgttc
 1020

gagcggacgt tcaacctcaa gtccatccgg ccttcatgc agtacaatag cacgcgggcg
1080
ggcggcgtgg aggtggatga agacaccatc cggcgcatcg aggagctcaa cgacctggac
1140
atcgagctgt acgactacgc caaggacctc ttccagcagc gctaccagta caagcggcag
1200
ctggagcgca gggagcagcg cctgaggagc cgcgaggagc gtctgctgca ccgggccaag
1260
gagggcactgc cgcgggagga tgccgacgag ccgggcccgc tgcccacoga ggactacatg
1320
agccacatca ttgagaagtg gtatggcggg tgggtggccac ggggaggcct cttggggggg
1380
gtgggggata aaacagagca gacgacaggt ccaccaaga ctgtcaaggg atgagcatcc
1440
caaacctgct ccacagaggt agctgcgtcc tgaaaaaaa cagagcaggg atgtagtggg
1500
gctgggcagg gatgggggct tgagaaatca acaggtgcag ccagtgggg cagagaaaag
1560
cgtgctcgaa ggatgccatg gtcagggcag ggcctccaga gcaggtgttg tgccctggagc
1620
tgctctcttg gcctccttgg atttatcgca aaaactgaag gtttgcgcaa gagacgagga
1680
cagcggaaag tggacctgcc aggcggggag tgtgtccctc accaactatg cacacagcac
1740
tcgctcttag ctctcttgct cgggctacta ggagtgagac cagcttcttg caactgcccc
1800
agctccaggc catcccatag cccctctctt tctggtgcc cccaatgcc cgaggcctgg
1860
ggagccccca gctcaccat ctgtagctcc ctcaaaagta gggcccccc catctgaggc
1920
agagaagact cgagtccagc cccaggaag cctgtccccc tctctggccc atggtcctgc
1980
ttcatgcttt gggtcaggag gccaaagctg atgttcaggc cccaccact cctacagtc
2040
ctcagaccaa ggggggggtt gggtagtagg cccgagctgc attgcccggc ttctctgggc
2100
caactggcag cccaggagtg gggaggcttt ggccagggat gctgccactt gtgcgtgagt
2160
cgcgggcttg cccttgagg tgacctcca ggcaggcctg gctcagactg gaagggctgg
2220
ggaccgaggg ctccctgcc tctgttctcc ttcttgacc actgggattt gctagcaggc
2280
tgccccagcc ccatcaccga aacacatact caagagctct ccttgcatat cccctgctc
2340
cccacccctt ggcaaaaggc tggccatgct ctgttccag cagcctcgca ggtttcccca
2400
ctggctgcaa tggccctact aaaagccatg ttgcataacc gttgtaagca cgtgcctgt
2460
gctctgtccc catctcttat gccctaggag gccaaagctg tgtctctagg agggcccaca
2520
caggcacctt ggatccccc gagagcagat tgggtgtgctc aggcgcgagg ctgactcaga
2580
ggtaggggca gtgggctctg caggccacct ggctgggggtt ggg
2623

<210> 3102
 <211> 410
 <212> PRT
 <213> Homo sapiens

<400> 3102
 Met Arg Arg Arg Pro Arg Gly Arg Thr Met Val Glu Arg Ala Ser Lys
 1 5 10 15
 Phe Val Leu Val Val Ala Gly Ser Val Cys Phe Met Leu Ile Leu Tyr
 20 25 30
 Gln Tyr Ala Gly Pro Gly Leu Ser Leu Gly Ala Pro Gly Gly Arg Ala
 35 40 45
 Pro Pro Asp Asp Leu Asp Leu Phe Pro Thr Pro Asp Pro His Tyr Glu
 50 55 60
 Lys Lys Tyr Tyr Phe Pro Val Arg Glu Leu Glu Arg Ser Leu Arg Phe
 65 70 75 80
 Asp Met Lys Gly Asp Asp Val Ile Val Phe Leu His Ile Gln Lys Thr
 85 90 95
 Gly Gly Thr Thr Phe Gly Arg His Leu Val Gln Asn Val Arg Leu Glu
 100 105 110
 Val Pro Cys Asp Cys Arg Pro Gly Gln Lys Lys Cys Thr Cys Tyr Arg
 115 120 125
 Pro Asn Arg Arg Glu Thr Trp Leu Phe Ser Arg Phe Ser Thr Gly Trp
 130 135 140
 Ser Cys Gly Leu His Ala Asp Trp Thr Glu Leu Thr Asn Cys Val Pro
 145 150 155 160
 Gly Val Leu Asp Arg Arg Asp Ser Ala Ala Leu Arg Thr Pro Arg Lys
 165 170 175
 Phe Tyr Tyr Ile Thr Leu Leu Arg Asp Pro Val Ser Arg Tyr Leu Ser
 180 185 190
 Glu Trp Arg His Val Gln Arg Gly Ala Thr Trp Lys Thr Ser Leu His
 195 200 205
 Met Cys Asp Gly Arg Thr Pro Thr Pro Glu Glu Leu Pro Pro Cys Tyr
 210 215 220
 Glu Gly Thr Asp Trp Ser Gly Cys Thr Leu Gln Glu Phe Met Asp Cys
 225 230 235 240
 Pro Tyr Asn Leu Ala Asn Asn Arg Gln Val Arg Met Leu Ala Asp Leu
 245 250 255
 Ser Leu Val Gly Cys Tyr Asn Leu Ser Phe Ile Pro Glu Gly Lys Arg
 260 265 270
 Ala Gln Leu Leu Leu Glu Ser Ala Lys Lys Asn Leu Arg Gly Met Ala
 275 280 285
 Phe Phe Gly Leu Thr Glu Phe Gln Arg Lys Thr Gln Tyr Leu Phe Glu
 290 295 300
 Arg Thr Phe Asn Leu Lys Phe Ile Arg Pro Phe Met Gln Tyr Asn Ser
 305 310 315 320
 Thr Arg Ala Gly Gly Val Glu Val Asp Glu Asp Thr Ile Arg Arg Ile
 325 330 335
 Glu Glu Leu Asn Asp Leu Asp Met Gln Leu Tyr Asp Tyr Ala Lys Asp
 340 345 350
 Leu Phe Gln Gln Arg Tyr Gln Tyr Lys Arg Gln Leu Glu Arg Arg Glu
 355 360 365
 Gln Arg Leu Arg Ser Arg Glu Glu Arg Leu Leu His Arg Ala Lys Glu

```

      370              375              380
Ala Leu Pro Arg Glu Asp Ala Asp Glu Pro Gly Arg Val Pro Thr Glu
385              390              395              400
Asp Tyr Met Ser His Ile Ile Glu Lys Trp
      405              410

<210> 3103
<211> 1228
<212> DNA
<213> Homo sapiens

<400> 3103
ctcgagctgg atccaccctt gagccttcac ctggagagtc ctctgcacaa gttcagagag
60
aaggactacg cgcagcaatg gttctcatca gggggcaact tcgccctcac atgcctctcc
120
caacccccct gggacactag gccgcggctg ggggaagcgg gagggagaat gttatcccc
180
tggcattgtg ctatgcagcg gaggagacag atgctgctaa acaccttgca atccacgggtg
240
ggaggggcccc tccccaccc cgaagtagcc attcggcaga ggtggagaaa ctgcgctgta
300
gatcaatgcc cagcactctg gccgacggaa atcacgaat ggtgaccaat tggattcttg
360
atctgagcaa aaagctccag cttcagaggg aactctcgaa gttttgcccc gagcaaacgg
420
aggggttgcg ttgccatcgc ctaaaatggg aaaatggcag gcgtcacagg ttgcagggga
480
aggttggaga ccagttgagt gccccggagc ctctctggaa agagtttctc atccagcccc
540
cctcgggttc cgcacccgtc tgattcctta tgatgttgag ggtgccgggg tctgggtctc
600
ttatgatgca gagggtgccc ccgtctcacc tcgggcgcct ccccgctccc gcctctctc
660
ggcaacctgg tgggcggctc cggacccggc gaccccgac catcttgtca gttgtgcgc
720
cctggcaaa ggcattctta ggcagtggt gnagacggcc ggtggccgca ctgcctccat
780
actcggactc cctcgtggag cccttggtgt gtcgcctgca ggttcttttt ttgaagaaa
840
caggagtgta acggccttgt gagacgactc caggagcaaa gggagactct cacaagacc
900
aagtctctct agagcacagg aaagtgtcgc ttcagggtca agaagggaga gaaagcagc
960
ttccgcattc gcattggtgt ctatgggcta ggattcgggt ctgaaagcgc caccggcccg
1020
gttcgattcc cggtcaggga attgttttgc actggcgcgc ctcccgagg aatcttctt
1080
taccacgctg tcagccggcc tgctccaagg gccagatgta gaacagcctc cgcagcgagg
1140
ggcaaacccg ggcaaaaggg ggcaagtctt ggtgggccac ctctcacgac acacggttcc
1200
tgtttatctc cgtgtccgct atccgcgg
1228

```

<210> 3104

<211> 144

<212> PRT

<213> Homo sapiens

<400> 3104

```

Met Met Leu Arg Val Pro Gly Ser Gly Ser Phe Met Met Gln Arg Val
 1           5           10           15
Pro Pro Ser His Leu Gly Arg Leu Pro Ala Pro Ala Ser Ser Trp Gln
 20           25           30
Pro Gly Gly Arg Leu Arg Thr Arg Arg Pro Ala Thr Ile Leu Ser Val
 35           40           45
Ala Ala Ala Trp Gln Arg Ala Ser Leu Gly Gln Trp Xaa Arg Arg Pro
 50           55           60
Val Ala Ala Leu Ala Pro Tyr Ser Asp Ser Leu Val Glu Pro Leu Val
 65           70           75           80
Cys Arg Leu Gln Val Leu Phe Leu Lys Lys Ala Gly Ser Glu Arg Pro
 85           90           95
Cys Glu Thr Thr Pro Gly Ala Lys Gly Asp Ser His Lys Thr Gln Val
100           105           110
Leu Leu Glu His Arg Lys Val Ser Leu Gln Val Glu Glu Gly Arg Glu
115           120           125
Ser Ser Phe Pro His Leu His Gly Cys Leu Val Ala Arg Ile Arg Cys
130           135           140

```

<210> 3105

<211> 4924

<212> DNA

<213> Homo sapiens

<400> 3105

```

ngcccgaac cgggaagtga gcggcggcag ctgcgaggct cgagagaaaca ggccgccgcgg
60
gctccgcgcc cggccggacc cgggcccag atcatgatgc tgccgccacc gccgccacca
120
cggagcgaga agcccagata gacgccccgg cgcccccggt ccttggaatc ccgccgccctg
180
ctgcccgccc gaggaccccc ccccgccctgc cggccgatgc ttgcagtggg gcccgccatg
240
gacagggatt acccgcagca tgaaccccc cgggcgggca gcctcctgta cagcccgccg
300
ccctgcgaga gcgccatgct gcactgcccc tactggaaca ccttctcgtc gccgccatac
360
cctgccttct ccagcgacag ccgcccgctc atgagctccg cctccttctc cggcagccag
420
cctgcccag acaccagcta tgcccccggt gccaccgctt ccagcttgcc accaaagacc
480
tgcgactttg ctcaggactc ctctattttt gaggactttt ccaacatctc catcttctcc
540
tcgtccgttg actccctgtc ggacatcgtg gacacgccc acttcctgcc ggctgacagc
600
ctcaaccagg tgtcccatct ctgggacgat aacctgccc cctccacca cgataagctg
660

```

ttccagctca gcaggccgtt tgagggttc gaggactttc tgcctccca cagcaccocg
720
cttctcgtca gctaccagga gcagagtgtg cagagccagc cagaggagga ggaagaggct
780
gaggaggagg aggcggagga gctggggcac acagagacct accgccacta cgtgccgtcc
840
aagtccaaga tcgggaagca gcaccagac cgctgggttg agaccagcac actgtccagc
900
gtccaccccc cagacatcac ctacacctg gccctgccct cggacagcgg gccctgtct
960
gccctgcagc tagaggccat cacctacgcc tgccagcaac acgaggctct gctcccccagc
1020
gggcagcggc cgggctttct catcgccgat ggggccggcg tgggcaaaagg ccggacgggtg
1080
gccggagtca tctcggagaa ccacctgcgc gccgggaaga aagcatttgt gtccagcgtc
1140
tccaacgacc ttaagtacga tgcggagcgc gacctgcggg acatcgaagc caccggcctc
1200
cggtgtgcag cgctcagcaa gatcaagtac ggtgacacca ctacctcaga gggcgctctc
1260
ttcgccacct actccgccct gattggggag agccaggccg cgggccagca ccgcaactcg
1320
ctccggcaga tctcggactg gtgtggggag gcccttgagg cgttcactgt gttcgacgag
1380
tgtcacaagg ccaagaatgc cggctccacc aagatgggca aggccgtgct agacctgcag
1440
aacaagctgc cctcggcccg cgtggttctc gccagcgcca caggtaacct tgagcctcgg
1500
aacatgatct acatgagcgg cttgggtatc tggggcgagg gcacacctt ccggaacttt
1560
gaggagtcc tgccagccat cgagaagagg ggcgttgccg ccattggagat cgtggccatg
1620
gacatgaagg tcagcggcat gtacatcgca cggcagctca gcttctccgg cgtcaccttc
1680
cgcatcgagg agatcccgct ggccccagcc ttcgagtgcg tctacaaccg cgcagccctg
1740
ctgtgggccc aggccctgaa cgtgttccag caggcgcccg actggatcgg cctggagtgc
1800
cgcaagtcct tgtggggcca gttctggtcg gcacaccagc gcttcttcaa gtatctgtgc
1860
atcgagcca aggtgcgccg gctggtggag ctggcccgag aggagctggc gcgagacaa
1920
tgctgggtca tcggggtgca gtccacgggc gaggcgcgca cgcgggagggt gctgggggag
1980
aacgatgggc acctcaactg cttcgtctcg gccgtgaag gcgtgttctt gtcgctaatt
2040
cagaagcact ttccgtccac caagagaaag cgggacagag gagggggcag caagcgga
2100
cggcgacctc ggggacggcg ggccaaagcc ccccggtctg cgtgcgagac agcgggctgc
2160
atccgcatac gtgacgacag cagcacggag tcggaccctg gcctggacag cgacttcaac
2220
tctcccccag agtcctcgtt ggatgacgac gttgtcatcg ttgatgcagt cgggctcccc
2280

agtgacgacc ggggatccct gtgcctcctg cagagagacc cgcattggccc cgggggtcctg
2340
gagcgggtgg agcgggtgaa gcagatctg ctggacaaa tgcgccggct gggccgggaa
2400
ctgccagtca acaccctgga cagatctatc gaccagctgg gcggccccca gcgggtggcg
2460
gagatgaccg gcaggaaagg ccgcgtgggtg tcagggcccg acgggacgggt ggccttcgag
2520
tcggggcgag agcaggggtct gtccatcgac cagtgaaac tcaggggagaa gcagcgcttc
2580
atgagcggcg agaagctcgt ggcctatctc tcggaggcct ccagctcggg tgtctccctc
2640
caagccgacc gccgtgtcca gaaccagcgg ccgcgcgtgc acatgacctt ggagctgcgc
2700
tggagcggcg accgcgccat ccagcagttc ggcgcgaccc accggtccaa ccaggtctcc
2760
gcgccagagt atgtcttctc catctcggag ctggccgggg agcgcgggtt cgcctccatc
2820
gtggccaagc gccctggagag tctggggggc ctgacccag gagaccggcg gccaccggag
2880
tccgtgacc tcagcaagta caactttgag aacaagtatg gcaccggggc cctgcactgt
2940
gtcctcacca ccactctgag ccagactgag aacaaagtgc ctgtgcccca gggataccct
3000
ggagggggtc ccacctctct ccgggacatg aagcaggggc tgtctgtctgt gggcattgggt
3060
ggccgggagt cccggaatgg ctgcctggac gtggagaagg actgttccat caccaagttc
3120
ctgaaccgca tctcggggct ggaggtgcac aagcagaacg ccctgttcca gtacttctca
3180
gacaccttcg accacctcat cgagatggac aagcgggagg gcaaatacga catgggcctc
3240
ctggaccttg ctcccggtat cgaggagatc tacgaggaga gccagcagggt gttcctggct
3300
cccgggcacc gcaggagcg gcaggtgggtc tctacaaga tcagcgtgga ccgcggcctg
3360
aagtgaggag acgcctttgc caagtgcgtg gcgctgacgg gccctatga cggctcttac
3420
ctctectaca aggtccgcgg taacaagccc agctgcctgc tggcgaggca gaaccggcg
3480
cagttcttca cgggtgtacaa gcccaacatc ggccggcaga gccagctgga ggcctggac
3540
agcctccgcc gcaagttcca ccgggtcacc gcggaggagg ccaaggagcc ctggggaggt
3600
ggctacgctt tgtcgtgac gcactgcagc cacagcgctt ggaaccggca ctgcggcgctg
3660
gcgcaggag gtaaggactg cctgcagggg ctgcggctgc ggcaccacta catgctgtgc
3720
ggcgcgctgc tgcgcgtgtg gggccgcctc gccgcctca tggccgacgt cagcagcagc
3780
agctacctgc agatcgtgcg gctgaagacc aaggacagga agaagcaagt gggcatcaag
3840
atcccgagg gctgcgtgcg ccgggtgctg caggagctgc ggctgatgga tgcggacgtg
3900

aagcgcaggc aggcgccccg cctgggctgc cccgccccgc cgcgccccgc cccgctggcg
 3960
 ctgccttgcg gccccggaga ggtgctggag ctacactaca gccccccggc cgaggccttc
 4020
 cgcgcgcccc cgcacttctc ttccccggcg cgcgtgtccc tggacgcggg ccccgcgctc
 4080
 gtgcgcgtgg gacccccga cgcggaggcc gacctgagg ccctgcgcga ccagggtctg
 4140
 gacatcaact tcaaggaggt gctggaggac atgctgcgct cgtgcacgc ggggcccccc
 4200
 tccggaggcg cgctggggga gggcgccggg gcgggggcg cgcgggcgcg tgggtcccgag
 4260
 cggcagagcg tgatccagtt cagccacccc ttccccggcg ccagggtccc tctctgacac
 4320
 gccttaggc gaaacatgcc ccaagacaca gggaccgttt ctcccctagg agcagcgggtg
 4380
 gggagcaggg ccaaggtccc ctgaccactg ctacaggag ccctaggccc tggcgccgagc
 4440
 gccttcagcg cccgaccggg gccccacact ggtcagccct ggcgggggccc actcaggaca
 4500
 gctgggggccc ggggcgtggc agggccctct ctgtgcctct cctcccaagt aggaaggggc
 4560
 tccgggtggc tgctctggga ctgggcaccc acaagggtcc agtggggccc aacccttgaa
 4620
 atccgtgaaa ccgggtggtc ccaagagcta gaaactcagg aaacccagg tgctcagggc
 4680
 ccccgctctc gggggctccg tggggcagac ccctgcta atattgcaatt ctccctcccc
 4740
 cagcccttcc ctgaccctta agttattgcc cgctacctc tcccaggccc caggccgcgg
 4800
 agctggcagg gtggcgccctg cggtttctat gtatttatag caagtctga tgtacatatg
 4860
 taaaggactt ttttaaatat atgtgccttt tgcctacttc caaaaaaaaa aaaaaaaaaa
 4920
 aacc
 4924

<210> 3106

<211> 1366

<212> PRT

<213> Homo sapiens

<400> 3106

Met	Leu	Ala	Val	Gly	Pro	Ala	Met	Asp	Arg	Asp	Tyr	Pro	Gln	His	Glu
1				5				10				15			
Pro	Pro	Pro	Ala	Gly	Ser	Leu	Leu	Tyr	Ser	Pro	Pro	Pro	Leu	Gln	Ser
				20				25				30			
Ala	Met	Leu	His	Cys	Pro	Tyr	Trp	Asn	Thr	Phe	Ser	Leu	Pro	Pro	Tyr
				35			40				45				
Pro	Ala	Phe	Ser	Ser	Asp	Ser	Arg	Pro	Phe	Met	Ser	Ser	Ala	Ser	Phe
				50		55				60					
Leu	Gly	Ser	Gln	Pro	Cys	Pro	Asp	Thr	Ser	Tyr	Ala	Pro	Val	Ala	Thr
				65		70				75			80		
Ala	Ser	Ser	Leu	Pro	Pro	Lys	Thr	Cys	Asp	Phe	Ala	Gln	Asp	Ser	Ser

515	520	525
Arg Lys Ser Leu Trp Gly Gln Phe Trp Ser Ala His Gln Arg Phe Phe		
530	535	540
Lys Tyr Leu Cys Ile Ala Ala Lys Val Arg Arg Leu Val Glu Leu Ala		
545	550	555
Arg Glu Glu Leu Ala Arg Asp Lys Cys Val Val Ile Gly Leu Gln Ser		
565	570	575
Thr Gly Glu Ala Arg Thr Arg Glu Val Leu Gly Glu Asn Asp Gly His		
580	585	590
Leu Asn Cys Phe Val Ser Ala Ala Glu Gly Val Phe Leu Ser Leu Ile		
595	600	605
Gln Lys His Phe Pro Ser Thr Lys Arg Lys Arg Asp Arg Gly Ala Gly		
610	615	620
Ser Lys Arg Lys Arg Arg Pro Arg Gly Arg Gly Ala Lys Ala Pro Arg		
625	630	635
Leu Ala Cys Glu Thr Ala Gly Val Ile Arg Ile Ser Asp Asp Ser Ser		
645	650	655
Thr Glu Ser Asp Pro Gly Leu Asp Ser Asp Phe Asn Ser Ser Pro Glu		
660	665	670
Ser Leu Val Asp Asp Asp Val Val Ile Val Asp Ala Val Gly Leu Pro		
675	680	685
Ser Asp Asp Arg Gly Ser Leu Cys Leu Leu Gln Arg Asp Pro His Gly		
690	695	700
Pro Gly Val Leu Glu Arg Val Glu Arg Leu Lys Gln Asp Leu Leu Asp		
705	710	715
Lys Val Arg Arg Leu Gly Arg Glu Leu Pro Val Asn Thr Leu Asp Glu		
725	730	735
Leu Ile Asp Gln Leu Gly Gly Pro Gln Arg Val Ala Glu Met Thr Gly		
740	745	750
Arg Lys Gly Arg Val Val Ser Arg Pro Asp Gly Thr Val Ala Phe Glu		
755	760	765
Ser Arg Ala Glu Gln Gly Leu Ser Ile Asp His Val Asn Leu Arg Glu		
770	775	780
Lys Gln Arg Phe Met Ser Gly Glu Lys Leu Val Ala Ile Ile Ser Glu		
785	790	795
Ala Ser Ser Ser Gly Val Ser Leu Gln Ala Asp Arg Arg Val Gln Asn		
805	810	815
Gln Arg Arg Arg Val His Met Thr Leu Glu Leu Pro Trp Ser Ala Asp		
820	825	830
Arg Ala Ile Gln Gln Phe Gly Arg Thr His Arg Ser Asn Gln Val Ser		
835	840	845
Ala Pro Glu Tyr Val Phe Leu Ile Ser Glu Leu Ala Gly Glu Arg Arg		
850	855	860
Phe Ala Ser Ile Val Ala Lys Arg Leu Glu Ser Leu Gly Ala Leu Thr		
865	870	875
His Gly Asp Arg Arg Ala Thr Glu Ser Arg Asp Leu Ser Lys Tyr Asn		
885	890	895
Phe Glu Asn Lys Tyr Gly Thr Arg Ala Leu His Cys Val Leu Thr Thr		
900	905	910
Ile Leu Ser Gln Thr Glu Asn Lys Val Pro Val Pro Gln Gly Tyr Pro		
915	920	925
Gly Gly Val Pro Thr Phe Phe Arg Asp Met Lys Gln Gly Leu Leu Ser		
930	935	940
Val Gly Ile Gly Gly Arg Glu Ser Arg Asn Gly Cys Leu Asp Val Glu		

945		950		955		960
Lys Asp Cys Ser Ile Thr Lys Phe Leu Asn Arg Ile Leu Gly Leu Glu						
	965		970			975
Val His Lys Gln Asn Ala Leu Phe Gln Tyr Phe Ser Asp Thr Phe Asp						
	980		985			990
His Leu Ile Glu Met Asp Lys Arg Glu Gly Lys Tyr Asp Met Gly Ile						
	995	1000		1005		
Leu Asp Leu Ala Pro Gly Ile Glu Glu Ile Tyr Glu Glu Ser Gln Gln						
	1010	1015		1020		
Val Phe Leu Ala Pro Gly His Pro Gln Asp Gly Gln Val Val Phe Tyr						
	1025	1030		1035		1040
Lys Ile Ser Val Asp Arg Gly Leu Lys Trp Glu Asp Ala Phe Ala Lys						
	1045		1050			1055
Ser Leu Ala Leu Thr Gly Pro Tyr Asp Gly Phe Tyr Leu Ser Tyr Lys						
	1060		1065			1070
Val Arg Gly Asn Lys Pro Ser Cys Leu Leu Ala Glu Gln Asn Arg Gly						
	1075	1080		1085		
Gln Phe Phe Thr Val Tyr Lys Pro Asn Ile Gly Arg Gln Ser Gln Leu						
	1090	1095		1100		
Glu Ala Leu Asp Ser Leu Arg Arg Lys Phe His Arg Val Thr Ala Glu						
	1105	1110		1115		1120
Glu Ala Lys Glu Pro Trp Glu Ser Gly Tyr Ala Leu Ser Leu Thr His						
	1125		1130			1135
Cys Ser His Ser Ala Trp Asn Arg His Cys Arg Leu Ala Gln Glu Gly						
	1140		1145			1150
Lys Asp Cys Leu Gln Gly Leu Arg Leu Arg His His Tyr Met Leu Cys						
	1155	1160		1165		
Gly Ala Leu Leu Arg Val Trp Gly Arg Ile Ala Ala Val Met Ala Asp						
	1170	1175		1180		
Val Ser Ser Ser Ser Tyr Leu Gln Ile Val Arg Leu Lys Thr Lys Asp						
	1185	1190		1195		1200
Arg Lys Lys Gln Val Gly Ile Lys Ile Pro Glu Gly Cys Val Arg Arg						
	1205		1210			1215
Val Leu Gln Glu Leu Arg Leu Met Asp Ala Asp Val Lys Arg Arg Gln						
	1220	1225		1230		
Ala Pro Ala Leu Gly Cys Pro Ala Pro Pro Ala Pro Arg Pro Leu Ala						
	1235	1240		1245		
Leu Pro Cys Gly Pro Gly Glu Val Leu Asp Leu Thr Tyr Ser Pro Pro						
	1250	1255		1260		
Ala Glu Ala Phe Pro Pro Pro His Phe Ser Phe Pro Ala Pro Leu						
	1265	1270		1275		1280
Ser Leu Asp Ala Gly Pro Gly Val Val Pro Leu Gly Thr Pro Asp Ala						
	1285		1290			1295
Gln Ala Asp Pro Ala Ala Leu Ala His Gln Gly Cys Asp Ile Asn Phe						
	1300	1305		1310		
Lys Glu Val Leu Glu Asp Met Leu Arg Ser Leu His Ala Gly Pro Pro						
	1315	1320		1325		
Ser Glu Gly Ala Leu Gly Glu Gly Ala Gly Ala Gly Gly Ala Ala Gly						
	1330	1335		1340		
Gly Gly Pro Glu Arg Gln Ser Val Ile Gln Phe Ser Pro Pro Phe Pro						
	1345	1350		1355		1360
Gly Ala Gln Ala Pro Leu						
	1365					

<210> 3107

<211> 2102

<212> DNA

<213> Homo sapiens

<400> 3107

atgctgcagg agtggctggc ggctgtgggc gatgactatg ctgctgtggt ctggaggcct
60
gagggcgagc ccaggttcta ccagatgaa gaggtccca agcactggac caaagaaagg
120
caccagtttc tgatggagct gaagcaggaa gccctcacct ttgccaggaa ctggggggcc
180
gactatatcc tgtttgcaga cacagacaac attctgacca acaatcagac tctgcggctt
240
ctcatggggc aggggcttcc agtgggtggc ccaatgctgg actcccagac ctactactcc
300
aaacttctggt gtgggatcac cccccagggc tactaccgcc gcacagccga gtacttcccc
360
accaagaacc gccagcgccg gggctgcttc cgtgtcccca tggteccact ccacttcctt
420
gcacccctgc gggctgaagg ggcagaccag cttgtcttct acccgccaca tcccaactac
480
acttggcctt tcgacgacat catcgtcttc gcctatgcct gccaggtctg tgggggtctc
540
gtccacgtgt gcaatgagca ccgttatggg tacatgaatg tggcggtgaa atccccaccg
600
gggctggaag acgagagggc caacttcac cactgatct tagaagcact agtgagcggc
660
cccgcatgc aggcctcagc tcatgtgact cggccctcta agaggcccag caagataggg
720
tttgacgagg tctttgtcat cagcctggct cgcaggcctg accgtcggga acgatgctc
780
gcctcgctct gggagatgga gatctctggg aggggtggtg acgctgtgga tggctggatg
840
ctcaacagca gtccatcag gaacctcggc gtgacctgc tcccgggcta ccaggacctt
900
tactcgggcc gcactctgac caaggcgag gtgggtctgt tctcagcca ttactccac
960
tgggaagagg tggttgccag gggcctggcc cgggtcctg tgtttgagga tgacgtgcgc
1020
tttgagagca acttcagggg gcggctggag cggctgatgg aggatgtgga ggcagagaaa
1080
ctgtcttggg acctgatcta cctcggacgg aagcaggatg acctgagaa gggagcggcc
1140
gtggaggggc tgccgggcct ggtggtggct gggtaetct actggacgct ggcctatgcc
1200
ctgcgtctgg cgggtgcccg aaagctgctg gcctcacagc ctctgcgccg catgctgccc
1260
gtggacgagt tcttcccat catgttcgac cagcaccaca acgagcagta caaggcacac
1320
ttctggccac gggacctggt ggccttctcc gccagcccc tgctcgctgc ccctaccac
1380
tatgccgggg acgcccagtg gctcagtac acggagacat cctctccatg ggatgatgac
1440

agcgcccgcc tcacagctg gagcggtcc caaaagacc tcgcagccc cgcctggac
 1500
 ctgactggca gcagcgggca cagcctccaa cccagcccc gagatgagct ctaggctcag
 1560
 gtgatgactg caaagcagtg tccaggagca ggccactact ccccagagag cagaggagga
 1620
 gggtgttggc agggactgca gatcctgtca gacctggcca ccacctggg catggccact
 1680
 ctgccctctg gacctgtctt tcacgggag aaaccactca gagatggatc ccattcccta
 1740
 aagggtctac agcaaaggag caggactccc agggccctgt acctcgctg gcctgattca
 1800
 gggccttctg gccccagct tctgtttcaa gctgggcaga cccaggatc ccttccctcc
 1860
 ctaaggactc agctgagggg cccctctgcc ccttctacc tccacctcag caccctcccc
 1920
 cagcttgatg tttgggtctc cccagcacc tcctccctgg ccggtgcaaa gtacaggag
 1980
 gtaaacgagg acccttgag acatgttgcc cagcacacag taggcccctca ataaagcca
 2040
 ttgcaactt aaatatatat atgtatgtat atatgtat atatatat atatatat
 2100
 gt
 2102

<210> 3108

<211> 517

<212> PRT

<213> Homo sapiens

<400> 3108

Met Leu Gln Glu Trp Leu Ala Ala Val Gly Asp Asp Tyr Ala Ala Val
 1 5 10 15
 Val Trp Arg Pro Glu Gly Glu Pro Arg Phe Tyr Pro Asp Glu Glu Gly
 20 25 30
 Pro Lys His Trp Thr Lys Glu Arg His Gln Phe Leu Met Glu Leu Lys
 35 40 45
 Gln Glu Ala Leu Thr Phe Ala Arg Asn Trp Gly Ala Asp Tyr Ile Leu
 50 55 60
 Phe Ala Asp Thr Asp Asn Ile Leu Thr Asn Asn Gln Thr Leu Arg Leu
 65 70 75 80
 Leu Met Gly Gln Gly Leu Pro Val Val Ala Pro Met Leu Asp Ser Gln
 85 90 95
 Thr Tyr Tyr Ser Asn Phe Trp Cys Gly Ile Thr Pro Gln Gly Tyr Tyr
 100 105 110
 Arg Arg Thr Ala Glu Tyr Phe Pro Thr Lys Asn Arg Gln Arg Arg Gly
 115 120 125
 Cys Phe Arg Val Pro Met Val His Ser Thr Phe Leu Ala Ser Leu Arg
 130 135 140
 Ala Glu Gly Ala Asp Gln Leu Ala Phe Tyr Pro Pro His Pro Asn Tyr
 145 150 155 160
 Thr Trp Pro Phe Asp Asp Ile Ile Val Phe Ala Tyr Ala Cys Gln Ala
 165 170 175
 Ala Gly Val Ser Val His Val Cys Asn Glu His Arg Tyr Gly Tyr Met

```

      180      185      190
Asn Val Pro Val Lys Ser His Gln Gly Leu Glu Asp Glu Arg Val Asn
      195      200      205
Phe Ile His Leu Ile Leu Glu Ala Leu Val Asp Gly Pro Arg Met Gln
      210      215      220
Ala Ser Ala His Val Thr Arg Pro Ser Lys Arg Pro Ser Lys Ile Gly
      225      230      235      240
Phe Asp Glu Val Phe Val Ile Ser Leu Ala Arg Arg Pro Asp Arg Arg
      245      250      255
Glu Arg Met Leu Ala Ser Leu Trp Glu Met Glu Ile Ser Gly Arg Val
      260      265      270
Val Asp Ala Val Asp Gly Trp Met Leu Asn Ser Ser Ala Ile Arg Asn
      275      280      285
Leu Gly Val Asp Leu Leu Pro Gly Tyr Gln Asp Pro Tyr Ser Gly Arg
      290      295      300
Thr Leu Thr Lys Gly Glu Val Gly Cys Phe Leu Ser His Tyr Ser Ile
      305      310      315      320
Trp Glu Glu Val Val Ala Arg Gly Leu Ala Arg Val Leu Val Phe Glu
      325      330      335
Asp Asp Val Arg Phe Glu Ser Asn Phe Arg Gly Arg Leu Glu Arg Leu
      340      345      350
Met Glu Asp Val Glu Ala Glu Lys Leu Ser Trp Asp Leu Ile Tyr Leu
      355      360      365
Gly Arg Lys Gln Val Asn Pro Glu Lys Glu Thr Ala Val Glu Gly Leu
      370      375      380
Pro Gly Leu Val Val Ala Gly Tyr Ser Tyr Trp Thr Leu Ala Tyr Ala
      385      390      395      400
Leu Arg Leu Ala Gly Ala Arg Lys Leu Leu Ala Ser Gln Pro Leu Arg
      405      410      415
Arg Met Leu Pro Val Asp Glu Phe Leu Pro Ile Met Phe Asp Gln His
      420      425      430
Pro Asn Glu Gln Tyr Lys Ala His Phe Trp Pro Arg Asp Leu Val Ala
      435      440      445
Phe Ser Ala Gln Pro Leu Leu Ala Ala Pro Thr His Tyr Ala Gly Asp
      450      455      460
Ala Glu Trp Leu Ser Asp Thr Glu Thr Ser Ser Pro Trp Asp Asp Asp
      465      470      475      480
Ser Gly Arg Leu Ile Ser Trp Ser Gly Ser Gln Lys Thr Leu Arg Ser
      485      490      495
Pro Arg Leu Asp Leu Thr Gly Ser Ser His Ser Leu Gln Pro Gln
      500      505      510
Pro Arg Asp Glu Leu
      515

```

<210> 3109

<211> 959

<212> DNA

<213> Homo sapiens

<400> 3109

```

nnacgcgtcc ttttcaccaa gtctcctgaa cacacaaccg ggtgccactg gaagtgtattc
60
gcagcgcacc tgccctttgt taatacaaca tcaccttgct ccataatccta ccaaatgattc
120

```


cctggaatct ggaaggatct acttcactcg atccctccac agtcagcagg acaactttat
 180
 tccagctctgg gggacgcctt acccgaggga gctgccaatc actgcagacg aagatgctca
 240
 cgcaatcttt cgactcgcg cgttctgccg gcgccatgta ggggcgctcc ctggatgaagg
 300
 tgattccctg cagactcgct cttcatcctg tgcgccatgt acaagcgagg gctgggtgcag
 360
 gtctggctct tagagcagcc cgaatggcac tgcaaaatag acgagggctc agccgggctg
 420
 gtggcctcgt gctggagccc ggacggcgcg cacattctca acaccacgga attccatctg
 480
 cggataaccg tctggtcctt gtgcacaaaa tccgtgtctt acatcaaata cccgaaagct
 540
 tgtctgcagg gaatcacctt caccagggac ggccgctaca tggcgctggc agaacggcg
 600
 gactgcgaag attacgtgag catcttcgtc tgcagtgtat ggcagctcct gcggcatttt
 660
 gatacggaca cccaggatct cacagggatt gagtgggccc caaacggctg tgtgctggca
 720
 gtgtgggaca cctgcttggg gtacaagatt ctgctgtact cattggatgg ccggtgtgtg
 780
 tccacgtaca gcgctntacg agtggctenn ctgggcatca agtctgtggc ctggagcccc
 840
 agcagtcagt tcttgccagt tgggagctat gatggaaagg tgcgcatcct taatcacgtg
 900
 acttgaaaaa tgatacggga gtttgggcat ccttcgagcc ccataaatga ttcccaaaa
 959

<210> 3110

<211> 207

<212> PRT

<213> Homo sapiens

<400> 3110

Met	Tyr	Lys	Arg	Gly	Leu	Val	Gln	Val	Trp	Ser	Leu	Glu	Gln	Pro	Glu
1				5					10				15		
Trp	His	Cys	Lys	Ile	Asp	Glu	Gly	Ser	Ala	Gly	Leu	Val	Ala	Ser	Cys
			20					25				30			
Trp	Ser	Pro	Asp	Gly	Arg	His	Ile	Leu	Asn	Thr	Thr	Glu	Phe	His	Leu
			35				40					45			
Arg	Ile	Thr	Val	Trp	Ser	Leu	Cys	Thr	Lys	Ser	Val	Ser	Tyr	Ile	Lys
			50			55					60				
Tyr	Pro	Lys	Ala	Cys	Leu	Gln	Gly	Ile	Thr	Phe	Thr	Arg	Asp	Gly	Arg
65					70					75				80	
Tyr	Met	Ala	Leu	Ala	Glu	Arg	Arg	Asp	Cys	Lys	Asp	Tyr	Val	Ser	Ile
				85				90						95	
Phe	Val	Cys	Ser	Asp	Trp	Gln	Leu	Leu	Arg	His	Phe	Asp	Thr	Asp	Thr
				100				105				110			
Gln	Asp	Leu	Thr	Gly	Ile	Glu	Trp	Ala	Pro	Asn	Gly	Cys	Val	Leu	Ala
			115				120					125			
Val	Trp	Asp	Thr	Cys	Leu	Glu	Tyr	Lys	Ile	Leu	Leu	Tyr	Ser	Leu	Asp
			130			135					140				
Gly	Arg	Leu	Leu	Ser	Thr	Tyr	Ser	Ala	Xaa	Arg	Val	Val	Xaa	Leu	Gly

145	150	155	160
Ile Lys Ser Val Ala Trp Ser Pro Ser Ser Gln Phe Leu Ala Val Gly			
	165	170	175
Ser Tyr Asp Gly Lys Val Arg Ile Leu Asn His Val Thr Trp Lys Met			
	180	185	190
Ile Thr Glu Phe Gly His Pro Cys Ser Pro Ile Asn Asp Ser Gln			
195	200	205	

<210> 3111
 <211> 1269
 <212> DNA
 <213> Homo sapiens

<400> 3111
 tttttttttt tttttttttt tttttttttt tttttcttta acaaaatatt tatttaataa
 60
 atgggttaaaa tcgcagtgcc aaaaatacat tgacatttag caatttcact gaaaggaaga
 120
 aactacagaa tgcacgggtt cagaaagcta ttttaagtta ttacaaaata aagtatctaa
 180
 aactcaaaaa caggctctgt atgctatatc tagtttatcc ctcccgaaac aaaatttctg
 240
 ttatttgggg aaattcttaa accatgggtt aaacogtaat gggtacaaac cacaacaca
 300
 tccatccaga gactgaaacc gtttctatcc ggtcagtgcc aaaactgttg aaagggcaat
 360
 agttgaagct gttgggtttt atatagtgtg aactctgata aatattccta ccaggactaa
 420
 aacacagcac gctttgcggg catggctgac tcacaaaggt tgtaacaaac aagaactact
 480
 ctccactcga caccatggct cagaggccac cgagaagcac gactgactga cagctcctct
 540
 gcttacaac gaataaaacc caaagtggtt gtcgttctca cagcactgaa agtgcttcag
 600
 gactcacact gatccaatac taactttctt cctattttta cacatatttt tctactgtcc
 660
 agtggaaatc attttctgtt ttggctaacc aacaaatact agtttataac aggaatggta
 720
 aaatctgtga gaattctgtc caatttaata caagatcact actttcttta gaatgggttc
 780
 tgcgtgtttc taogtcaccc tctgtatttt tagcttccag ttctctggta aggaataagt
 840
 tctcctcccc agtcacactc ggggtcattt acacgtttct gggatgcctt tgctcgtcca
 900
 tggaggccag gtgcgtgcag tgactcactc tgcctcttcc ctctctcag gaccagtccc
 960
 cgaacottct gccttcgaga tcctcccgtc tccgccacac tctcgcgtc ggaagcgagc
 1020
 tcttgatca tacagctgca aggtggcggt gtccttggtt gccagtgcct ctcttctggg
 1080
 tgctggactg tgcacacac tctgcgtctc tccagttctc tccatggcct ccccccggagc
 1140
 ccgctgtccc tggctccctc tcttccctct gtcttgccca ggtcctttcc cccatctctg
 1200

ctcatcctca ctcctctctgg aaagccgttc aggcctcgtgg tgagctctgt gcctcctgcc

1260

gtcatccac

1269

<210> 3112

<211> 151

<212> PRT

<213> Homo sapiens

<400> 3112

Met Thr Ala Gly Gly Thr Glu Leu Thr Thr Ser Leu Asn Gly Phe Pro

1 5 10 15

Glu Gly Val Arg Met Ser Arg Asp Gly Gly Lys Asp Leu Ala Lys Thr

20 25 30

Glu Gly Arg Arg Gly Ala Arg Thr Ala Gly Leu Arg Gly Arg Pro Trp

35 40 45

Arg Asp Trp Glu Glu Arg Arg Gly Val Thr Thr Val Gln His Pro Glu

50 55 60

Lys Ser Asp Trp Gln Thr Arg Thr Gly Gln Pro Cys Ser Cys Met Ile

65 70 75 80

Gln Glu Leu Ala Ser Glu Arg Glu Ser Val Ala Glu Ala Gly Gly Ser

85 90 95

Ala Arg Gln Lys Val Arg Gly Leu Val Leu Arg Arg Gly Lys Arg Gln

100 105 110

Ser Glu Ser Leu His Ala Pro Gly Leu His Gly Arg Ala Arg Ala Ser

115 120 125

Gln Lys Arg Val Asn Asp Pro Glu Cys Asp Trp Glu Gly Glu Leu Ile

130 135 140

Pro Tyr Gln Glu Thr Gly Ser

145 150

<210> 3113

<211> 631

<212> DNA

<213> Homo sapiens

<400> 3113

nacgcgttcc tgcagaacgc ctcagccgtg gtcattctca acgtgggctc caacaccaac

60

gagaccatca ccatgcccc cgcgggtgta gaagacatcg tggccataat gattcctgag

120

cctaaaagga aggagatagt aagcctgctg gaaagaaaca tcaccgtgac aatgtacatc

180

accatcgga cccggaactt gcagaaatat gtgagccgca cttcgggtgt gtttctctcc

240

atctcctca ttgtcctgat gatcatttcc ctcgcatggc tcgtctttta ttacatccag

300

aggtttcgat atgcaaatgc cagggatagg aaccagcgcc gactggggga tgcagcaagg

360

aaagccatca gcaaaactcca gatcaggacc atcaagaagg gtgacaagga aacagagtct

420

gattttgaca actgtgcagt ttgtattgaa ggggtacaag ccaatgacgt tgtccggatc

480

ctgcctctgcc ggcattcttt ccacaagtcc tgtgttgacc cctggcttct agaccatcgt
 540
 accctgtccca tgtgcaagat gaacattctt aaagccctag ggatcccccc caatgccgac
 600
 tgcattggacg actttgccac tgacttcgag g
 631

<210> 3114
 <211> 210
 <212> PRT
 <213> Homo sapiens

<400> 3114
 Xaa Ala Phe Leu Gln Asn Ala Ser Ala Val Val Ile Phe Asn Val Gly
 1 5 10 15
 Ser Asn Thr Asn Glu Thr Ile Thr Met Pro His Ala Gly Val Glu Asp
 20 25 30
 Ile Val Ala Ile Met Ile Pro Glu Pro Lys Gly Lys Glu Ile Val Ser
 35 40 45
 Leu Leu Glu Arg Asn Ile Thr Val Thr Met Tyr Ile Thr Ile Gly Thr
 50 55 60
 Arg Asn Leu Gln Lys Tyr Val Ser Arg Thr Ser Val Val Phe Val Ser
 65 70 75 80
 Ile Ser Phe Ile Val Leu Met Ile Ile Ser Leu Ala Trp Leu Val Phe
 85 90 95
 Tyr Tyr Ile Gln Arg Phe Arg Tyr Ala Asn Ala Arg Asp Arg Asn Gln
 100 105 110
 Arg Arg Leu Gly Asp Ala Ala Lys Lys Ala Ile Ser Lys Leu Gln Ile
 115 120 125
 Arg Thr Ile Lys Lys Gly Asp Lys Glu Thr Glu Ser Asp Phe Asp Asn
 130 135 140
 Cys Ala Val Cys Ile Glu Gly Tyr Lys Pro Asn Asp Val Val Arg Ile
 145 150 155 160
 Leu Pro Cys Arg His Leu Phe His Lys Ser Cys Val Asp Pro Trp Leu
 165 170 175
 Leu Asp His Arg Thr Cys Pro Met Cys Lys Met Asn Ile Leu Lys Ala
 180 185 190
 Leu Gly Ile Pro Pro Asn Ala Asp Cys Met Asp Asp Phe Ala Thr Asp
 195 200 205
 Phe Glu
 210

<210> 3115
 <211> 1366
 <212> DNA
 <213> Homo sapiens

<400> 3115
 ncacaaaggc accaaaccac aaaacgtcac acgtaaacat catacgtggc aaccacaagg
 60
 caatcagttg gatatttcat tcattggtat acatatggac tgtaagggtg ctttcagggt
 120
 gcagaaaaga tggaaaaaag gacatgtgca ctctgcccc aagatgtcga atataatgtc
 180

ctatactttg cacaatcaga gaatatagct gctcatgaga attgtttgct gtattcttca
 240
 ggactttgtg aatgtgagga tcaggatcca cttaatcctg atagaagttt tgatgtggaa
 300
 tcagtaaga aagaaatcca gagaggaagg aagttgaaat gcaatttttg tcataaaaga
 360
 ggagccaccg tgggatgtga tttaaaaaac tgtaacaaga attaccactt tttctgtgcc
 420
 aagaaggacg acgcagttcc acagtctgat ggagttcgag gaatttataa actgctttgc
 480
 cagcaacatg ctcaattccc gatcatcgct caaagtggta aattttcagg agtgaaaaga
 540
 aaaagaggaa ggaagaaacc cctctcagge aatcatgtac agccaccgga aacaatgaaa
 600
 tgtaatacat tcataagaca agtgaaagaa gagcatggca gacacacaga tgcaactgtg
 660
 aaagttcctt tttttaagaa atgcaagnga agcaggactt cttaattact tacttgaaga
 720
 aatattagac aaagttcatt caattccaga aaaactcatg gatgagacta cttcagaatc
 780
 agactatgaa gaaatcggga gtgcactttt tgactgtaga ttgttcgaag acacatttgt
 840
 aaattttcaa cgagcaatag agaaaaaaat tcatgcatct caacaaagggt ggcagcagtt
 900
 gaaggaagag attgagctac ttcaggactt aaaacaaacc ttgtgctcct ttcaagaaaa
 960
 tagagatcct atgtcaagtt ctacatcaat atcatccctg tcttattagg gattaccggt
 1020
 tcctaagcca agagtcatgt caaattgcaa tcagggtcaa aaccagagac caggctgtga
 1080
 aatccacaca tctttagaac tagtcgtctc ctcttggcct cagcagctct tccctgttct
 1140
 tactggttga cattttgate actctttgca cactcttgtg ttttttgctc actgtcacat
 1200
 tcccagcacc tagtatgctc agtaaatgtt tgtggaataa gtgcataaaa tgttcttaac
 1260
 ctttgattct acttacagcc catgatagcc tcttcttaga tataataaat ttggattata
 1320
 ctaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa
 1366

<210> 3116

<211> 191

<212> PRT

<213> Homo sapiens

<400> 3116

Met Glu Lys Arg Thr Cys Ala Leu Cys Pro Lys Asp Val Glu Tyr Asn
 1 5 10 15
 Val Leu Tyr Phe Ala Gln Ser Glu Asn Ile Ala Ala His Glu Asn Cys
 20 25 30
 Leu Leu Tyr Ser Ser Gly Leu Val Glu Cys Glu Asp Gln Asp Pro Leu
 35 40 45
 Asn Pro Asp Arg Ser Phe Asp Val Glu Ser Val Lys Lys Glu Ile Gln

50		55		60
Arg Gly Arg Lys Leu Lys Cys Lys Phe Cys His Lys Arg Gly Ala Thr				
65	70	75	80	
Val Gly Cys Asp Leu Lys Asn Cys Asn Lys Asn Tyr His Phe Cys				
85	90	95		
Ala Lys Lys Asp Asp Ala Val Pro Gln Ser Asp Gly Val Arg Gly Ile				
100	105	110		
Tyr Lys Leu Leu Cys Gln Gln His Ala Gln Phe Pro Ile Ile Ala Gln				
115	120	125		
Ser Gly Lys Phe Ser Gly Val Lys Arg Lys Arg Gly Arg Lys Lys Pro				
130	135	140		
Leu Ser Gly Asn His Val Gln Pro Pro Glu Thr Met Lys Cys Asn Thr				
145	150	155		
Phe Ile Arg Gln Val Lys Glu Glu His Gly Arg His Thr Asp Ala Thr				
165	170	175		
Val Lys Val Pro Phe Leu Lys Lys Cys Lys Xaa Ser Arg Thr Ser				
180	185	190		

<210> 3117

<211> 1373

<212> DNA

<213> Homo sapiens

<400> 3117

nnaaccacaga agcaaaagag cagagctacc atgtcctctt ggagcagaca gcgacacaaa
 60
 agcccagggg gcattcaacc ccatgtttct agaactctgt tcctgctgct gctgtggca
 120
 gcctcagcct ggggggtcac cctgagcccc aaagactgcc aggtgttcg ctcagaccat
 180
 ggcagctcca tctcctgtca accacctgcc gaaatcccg gctacctgcc agccgacacc
 240
 gtgcacctgg cgtggaatt ctccaacctg acccacctgc cagccaacct cctccagggc
 300
 gcctctaagc tccaagaatt gcacctctcc agcaatgggc tggaaagcct ctgcccga
 360
 ttcctgctgc cagtgcgcga gctgaggggt ctggatctaa ccgaaacgc cctgacggg
 420
 ctgcccccg gcctcttcca ggcctcagcc accctggaca ccctggtatt gaaagaaaac
 480
 cagctggagg tcctggaggt ctctggcta cagcgctga aagctctggg gcattcggac
 540
 ctgtctggga accgcctcg gaaactgcc cccgggctgc tggccaactt caccctctg
 600
 cgcacccttg accttgggga gaaccagttg gagacctgc cacctgacct cctgaggggt
 660
 ccgtgcaat tagaacggct acatctagaa ggcaacaaat tgcaagtact gggaaaagat
 720
 ctctctctgc cgcagccgga cctgcgctac ctcttcttga cgggcaacaa gctggccagg
 780
 gtggcagcgg gtgccttcca gggcctgcgg cagctggaca tgctggacct ctccaataac
 840
 tcaactggcca cgctgccccg ggggctctgg gcatccctag ggcagccaaa ctgggacatg
 900

cgggatggct tcgacatctc cggaaccccc tggatctgtg accagaacct gagcgacctc
 960
 tatcgttggc ttcaggccca aaaagacaag atgttttccc agaattgacac gcgctgtgct
 1020
 gggcctgaag ccgtgaaggg ccagacgctc ctggcagtgg ccaagtccca gtgagaccag
 1080
 gggcttgggt tgaggggtggg gggctctggtg gaacactgca acccgcttaa caaataatcc
 1140
 tgcctttggc cgggtgcggg ggctcacgccc tgtaatccca gcactttggg gagggccagg
 1200
 tggcggaatc acgaggtcag gagatcgaga ccatcttggc taacatgggt aaacctgtgc
 1260
 tctactaaaa atataaaaaa ttaggccaggc gtggtggtgg gcacctgtag tccagcaac
 1320
 tcgggaggct gaggcaggag aatggcgtga acttgggagg cggagcttgc ggt
 1373

<210> 3118

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3118

Val Thr Leu Ser	Pro Lys Asp Cys	Gln Val Phe Arg Ser	Asp His Gly
1	5	10	15
Ser Ser Ile Ser	Cys Gln Pro Pro	Ala Glu Ile Pro	Gly Tyr Leu Pro
20	25	30	
Ala Asp Thr Val	His Leu Ala Val	Glu Phe Phe Asn	Leu Thr His Leu
35	40	45	
Pro Ala Asn Leu	Leu Gln Gly Ala	Ser Lys Leu Gln	Glu Leu His Leu
50	55	60	
Ser Ser Asn Gly	Leu Glu Ser Leu	Ser Pro Glu Phe	Leu Arg Pro Val
65	70	75	80
Pro Gln Leu Arg	Val Leu Asp Leu	Thr Arg Asn Ala	Leu Thr Gly Leu
85	90	95	
Pro Pro Gly Leu	Phe Gln Ala Ser	Ala Thr Leu Asp	Thr Leu Val Leu
100	105	110	
Lys Glu Asn Gln	Leu Glu Val Leu	Glu Val Ser Trp	Leu His Gly Leu
115	120	125	
Lys Ala Leu Gly	His Leu Asp Leu	Ser Gly Asn Arg	Leu Arg Lys Leu
130	135	140	
Pro Pro Gly Leu	Leu Ala Asn Phe	Thr Leu Leu Arg	Thr Leu Asp Leu
145	150	155	160
Gly Glu Asn Gln	Leu Glu Thr Leu	Pro Pro Asp Leu	Leu Arg Gly Pro
165	170	175	
Leu Gln Leu Glu	Arg Leu His Leu	Glu Gly Asn Lys	Leu Gln Val Leu
180	185	190	
Gly Lys Asp Leu	Leu Leu Pro Gln	Pro Asp Leu Arg	Tyr Leu Phe Leu
195	200	205	
Ser Gly Asn Lys	Leu Ala Arg Val	Ala Ala Gly Ala	Phe Gln Gly Leu
210	215	220	
Arg Gln Leu Asp	Met Leu Asp Leu	Ser Asn Asn Ser	Leu Ala Ser Val
225	230	235	240
Pro Glu Gly Leu	Trp Ala Ser Leu	Gly Gln Pro Asn	Trp Asp Met Arg

```

                245                250                255
Asp Gly Phe Asp Ile Ser Gly Asn Pro Trp Ile Cys Asp Gln Asn Leu
                260                265                270
Ser Asp Leu Tyr Arg Trp Leu Gln Ala Gln Lys Asp Lys Met Phe Ser
                275                280                285
Gln Asn Asp Thr Arg Cys Ala Gly Pro Glu Ala Val Lys Gly Gln Thr
                290                295                300
Leu Leu Ala Val Ala Lys Ser Gln
105                310

<210> 3119
<211> 427
<212> DNA
<213> Homo sapiens

<400> 3119
gtacacatgg tgctcaacca gcaggggcgg ccatcggggcg atgccttcat tcagatgaca
60
tcagcagagc gagccctagc tgctgctcag cgttgccata agaaggtgat gaaggagcgc
120
tacgtggagg tggccccctg ttccacagag gagatgagcc gagtgctgat ggggggcacc
180
ttggggccga gtggcatgtc cctccaccc tgcaagctgc cctgcctctc accacctacc
240
tacaccacct tccaagccac cccaacgctc attccacg agacggcagc tctatacccc
300
tcttcagcac tgctcccagc tgccagggtg cctgctgccc ccacctctgt tgcctactat
360
ccaggggcag ccaactcaact ctacctgaac tacacagcct actaccaag cccgaagac
420
aacgcgt
427

<210> 3120
<211> 142
<212> PRT
<213> Homo sapiens

<400> 3120
Val His Met Val Leu Asn Gln Gln Gly Arg Pro Ser Gly Asp Ala Phe
1 5 10 15
Ile Gln Met Thr Ser Ala Glu Arg Ala Leu Ala Ala Gln Arg Cys
20 25 30
His Lys Lys Val Met Lys Glu Arg Tyr Val Glu Val Val Pro Cys Ser
35 40 45
Thr Glu Glu Met Ser Arg Val Leu Met Gly Gly Thr Leu Gly Arg Ser
50 55 60
Gly Met Ser Pro Pro Pro Cys Lys Leu Pro Cys Leu Ser Pro Pro Thr
65 70 75 80
Tyr Thr Thr Phe Gln Ala Thr Pro Thr Leu Ile Pro Thr Glu Thr Ala
85 90 95
Ala Leu Tyr Pro Ser Ser Ala Leu Leu Pro Ala Ala Arg Val Pro Ala
100 105 110
Ala Pro Thr Pro Val Ala Tyr Tyr Pro Gly Pro Ala Thr Gln Leu Tyr

```


	115		120		125
Leu	Asn	Tyr	Thr	Ala	Tyr
	130		135		140
		Tyr	Pro	Ser	Pro
			Glu	Asp	Asn
			Ala		

<210> 3121

<211> 284

<212> DNA

<213> Homo sapiens

<400> 3121

gaattccatg gcagctggga catctgtgag ccacgtgggt tcctgggcag caccaggacc
 60
 atctgaggat ttctcaactt ctgcagcaac ttctgcagcc agctcacacg tgaggagagaa
 120
 taagaggaac atgaacctgg acggggcagc ttccattgtc cctctcctgc tectgcta
 180
 gaacaaggcc tccccagagt atgaagagaa catgcacaga taccagaagg cagccaagct
 240
 cttccgggga agattctctt tattctgggt gacagtggta tgaa
 284

<210> 3122

<211> 91

<212> PRT

<213> Homo sapiens

<400> 3122

Met	Ala	Ala	Gly	Thr	Ser	Val	Ser	His	Val	Gly	Ser	Trp	Ala	Ala	Pro
1					5				10					15	
Gly	Pro	Ser	Glu	Asp	Phe	Ser	Thr	Ser	Ala	Ala	Thr	Ser	Ala	Ala	Ser
			20				25						30		
Ser	His	Val	Arg	Arg	Asn	Lys	Arg	Asn	Met	Asn	Leu	Asp	Gly	Ala	Ala
			35			40						45			
Ser	Ile	Val	Pro	Leu	Leu	Leu	Leu	Leu	Met	Asn	Lys	Ala	Ser	Pro	Glu
			50			55					60				
Tyr	Glu	Glu	Asn	Met	His	Arg	Tyr	Gln	Lys	Ala	Ala	Lys	Leu	Phe	Arg
			65		70			75					80		
Gly	Arg	Phe	Ser	Leu	Phe	Trp	Trp	Thr	Val	Val					
			85					90							

<210> 3123

<211> 344

<212> DNA

<213> Homo sapiens

<400> 3123

aagaaagtga actgcaagcc caagaaccag gacgaacagg agattccttt ccggctccgg
 60
 gagattatga ggagccgcca agagatgaaa aaccgatca gtaacaagaa gaggaagaaa
 120
 gcagcccagg tgaccttcag aaagacattg gagaagggaag caaagggaga ggagcccagc
 180
 atcgcagtcc ccaagttcaa acagaggaag ggggagtcag acggggccta tatccaccgc
 240

atgcagcaag aggccagca tgtgctgttc ctcagcaaga accaggccat coggcagcca
 300
 gaggtgcagg cagctcccaa ggagaagtct gagcagaaaa aagc
 344

<210> 3124
 <211> 92
 <212> PRT
 <213> Homo sapiens

<400> 3124
 Met Arg Ser Arg Gln Glu Met Lys Asn Pro Ile Ser Asn Lys Lys Arg
 1 5 10 15
 Lys Lys Ala Ala Gln Val Thr Phe Arg Lys Thr Leu Glu Lys Glu Ala
 20 25 30
 Lys Gly Glu Glu Pro Asp Ile Ala Val Pro Lys Phe Lys Gln Arg Lys
 35 40 45
 Gly Glu Ser Asp Gly Ala Tyr Ile His Arg Met Gln Gln Glu Ala Gln
 50 55 60
 His Val Leu Phe Leu Ser Lys Asn Gln Ala Ile Arg Gln Pro Glu Val
 65 70 75 80
 Gln Ala Ala Pro Lys Glu Lys Ser Glu Gln Lys Lys
 85 90

<210> 3125
 <211> 647
 <212> DNA
 <213> Homo sapiens

<400> 3125
 agatggagtt ttgctcttcg tgcccaggct ggagtaccat ggtgacagtg cgaagctaag
 60
 acattaggaa ggtgctgagg aaagccatta agcatccaca gctccactgc ctaggcagat
 120
 ggtcagcagg cagtttagtt gtgggagtat ttccaatttg catgaatgaa acatggacaa
 180
 ataagataag gctggctcca ggaagtaaat tccccagtt cccctgagcc ttggatctgg
 240
 aaaaactgcag ccatcctcgg aattaggga catcacaaaa cgtactgggg agaactcccc
 300
 atgtggcctc ggcccacgcc agaagccggg caaggtccca agtgcgggct cgcccacaa
 360
 ctatggctaa gacagaaaaa caaaggaaaa aaagtcctcc ccaaacacac acataagcaa
 420
 aaccatctt cctgtgttct ctgccaagag agctggagca aaagagatga gtttgagact
 480
 ctgattcatc catcaagaca aataaactca gtctatggag gtttagcagg caatttgtga
 540
 agcaaacaaa agttgagttt tggaaagggg ctctgaagaa aatgaagatg acataccagg
 600
 aatttaactt catgacaaga agagaaagtg actcactctt gacgcgt
 647

<210> 3126

<211> 116
 <212> PRT
 <213> Homo sapiens

<400> 3126
 Met Lys Leu Asn Ser Trp Tyr Val Ile Phe Ile Phe Phe Arg Ala Pro
 1 5 10 15
 Phe Gln Asn Ser Thr Phe Val Cys Phe Thr Asn Cys Pro Ala Asn Leu
 20 25 30
 His Arg Leu Ser Leu Phe Val Leu Met Asp Glu Ser Glu Ser Gln Thr
 35 40 45
 His Leu Phe Cys Ser Ser Ser Leu Gly Arg Glu His Arg Lys Met Gly
 50 55 60
 Phe Ala Tyr Val Cys Val Trp Gly Gly Leu Phe Phe Leu Cys Phe Ser
 65 70 75 80
 Val Leu Ala Ile Ala Cys Gly Arg Ala Gly Thr Trp Asp Leu Ala Arg
 85 90 95
 Leu Leu Ala Trp Ala Glu Ala Thr Trp Gly Val Leu Pro Ser Thr Phe
 100 105 110
 Cys Asp Val Pro
 115

<210> 3127
 <211> 2218
 <212> DNA
 <213> Homo sapiens

<400> 3127
 ncagaagtta gccaaagatga acttaaatgaa atcaatcagt tcttgggacc cgtggaaaaa
 60
 ttcttccactg aagaggtgga ctcccgaata attgaccagg aagggaataat ccagatgaa
 120
 actttggaga aattgaagag cctagggtctt ttgggctgc aagtcaccaga agaataatgt
 180
 ggctctgggtc tctccaacac catgtactca agactagggg agatcatcag catggatggg
 240
 tccatcactg tgaccctggc agcgcaccag gctattggcc tcaaggggat catcttgggt
 300
 ggcatctgagg agcagaaagc caaataacttg cctaaactgg cgtccgggga gcacatagca
 360
 gcctctctgcc tcacggagcc agccagtggg agcgatgcag cctcaatccg gagcagagcc
 420
 acactaagt aagacaagaa gcactacatc ctcaatgggt ccaaggtctg gattactaat
 480
 ggaggactgg ccaatatctt tactgtgttt gcaaaagact aggtcgttga ttctgatgga
 540
 tcagtgaag acaagatcac agcattcata gtagaagag actttgggtg agtcactaat
 600
 gggaaacccg aagataaatt aggcattcgg ggctccaaca cttgtgaagt ccattttgaa
 660
 aaacccaaga tacctgtgga aaacatcctt ggagaggtcg gagatgggtt taagggtggc
 720
 atgaacatcc tcaacagcgg ccggttcagc atgggcagcg tcgtgggtcg gctgtcaag
 780

```

agattgattg aaatgactgc tgagtacgcc tgcacaagga aacagttaa caaggaggctc
840
agtgaatttg gattgattca ggagaaattt gcactgatgg ctacagaaggc ttacgtcatg
900
gagagtatga cctacctcac agcaggggatg ctggaccaac ctggctttcc cgactgctcc
960
atcgaggcag ccatggtgaa ggtgttcagc tccgaggccg cctggcagtg tgtgagtgg
1020
gcgctgcaga tctctggggg ctctgggctac acaagggaact atccgtacga gcgcatactg
1080
cgtgacaccc gcactctcct catcttcgag ggaaccaatg agattctccg gatgtacatc
1140
gccctgacgg gtctgcagca tgccggccgc atcctgacta ccaggatcca tgagcttaaa
1200
caggccaag tgagcacagt catggatacc gttggccgga ggcttcggga ctccctgggc
1260
cgaactgtgg acctggggct gacaggcaac catggagttg tgcaccccag tcttcgggac
1320
agtgccaaaca agtttgagga gaacacctac tgcttcggcc ggaccgtgga gacactgtg
1380
ctccgctttg gcaagacct catggaggag cagctggtac tgaagcgggt ggccaacatc
1440
ctcatcaacc tgtatggcat gacggccgtg ctgtcgcggg ccagccgctc catccgcat
1500
gggctccgca accacgacca cgaggttctc ttggccaaca cttctcgct ggaagcttac
1560
ttgcagaatc tcttcagcct ctctcagctg gacaagtatg ctccagaaaa cctatagatg
1620
cagattaaga aagtgtccca gcagatcctt gagaagcgag cctatatctg tgccaccct
1680
ctggacagga catgctgagg caggggacag tgtccctcgc taccgcccgc ccctaccat
1740
ggcccggtgc tggatgactg ttactctttt ttcagaaggt gttgggatta tcacaggtta
1800
agccctttgt tcccgtctg cacctgaagg gttgtcgctt ggccctgggag agcctcttcc
1860
agggtttgac ctgcaggcag tgctctctaa caggaccate acagcttctg aactgagccg
1920
gagagagaga atggaattgc tgacccctgg aactggcggg tattctggtc attgaggaga
1980
caccatagtg gaaactggg cttatgtctg tgccctccag gtgtgagggt ggtggggacc
2040
tgtgtcaggt gtggatagcc atttctgctc aaccacacat tctctaagaa acagcttgaa
2100
agctctgtct gggctattca tttaaactag aagcagaggg acttaaaaaa tgtaccagga
2160
accatttaac aaagaatata aaatgtcaca atctgtgtac tgtaaaaaaa aaaaaaaa
2218

<210> 3128
<211> 565
<212> FRT
<213> Homo sapiens

```

<400> 3128

Xaa Glu Val Ser Gln Asp Glu Leu Asn Glu Ile Asn Gln Phe Leu Gly
 1 5 10 15
 Pro Val Glu Lys Phe Phe Thr Glu Glu Val Asp Ser Arg Lys Ile Asp
 20 25 30
 Gln Glu Gly Lys Ile Pro Asp Glu Thr Leu Glu Lys Leu Lys Ser Leu
 35 40 45
 Gly Leu Phe Gly Leu Gln Val Pro Glu Glu Tyr Gly Gly Leu Gly Phe
 50 55 60
 Ser Asn Thr Met Tyr Ser Arg Leu Gly Glu Ile Ile Ser Met Asp Gly
 65 70 75 80
 Ser Ile Thr Val Thr Leu Ala Ala His Gln Ala Ile Gly Leu Lys Gly
 85 90 95
 Ile Ile Leu Ala Gly Thr Glu Glu Gln Lys Ala Lys Tyr Leu Pro Lys
 100 105 110
 Leu Ala Ser Gly Glu His Ile Ala Ala Phe Cys Leu Thr Glu Pro Ala
 115 120 125
 Ser Gly Ser Asp Ala Ala Ser Ile Arg Ser Arg Ala Thr Leu Ser Glu
 130 135 140
 Asp Lys Lys His Tyr Ile Leu Asn Gly Ser Lys Val Trp Ile Thr Asn
 145 150 155 160
 Gly Gly Leu Ala Asn Ile Phe Thr Val Phe Ala Lys Thr Glu Val Val
 165 170 175
 Asp Ser Asp Gly Ser Val Lys Asp Lys Ile Thr Ala Phe Ile Val Glu
 180 185 190
 Arg Asp Phe Gly Gly Val Thr Asn Gly Lys Pro Glu Asp Lys Leu Gly
 195 200 205
 Ile Arg Gly Ser Asn Thr Cys Glu Val His Phe Glu Asn Thr Lys Ile
 210 215 220
 Pro Val Glu Asn Ile Leu Gly Glu Val Gly Asp Gly Phe Lys Val Ala
 225 230 235 240
 Met Asn Ile Leu Asn Ser Gly Arg Phe Ser Met Gly Ser Val Val Ala
 245 250 255
 Gly Leu Leu Lys Arg Leu Ile Glu Met Thr Ala Glu Tyr Ala Cys Thr
 260 265 270
 Arg Lys Gln Phe Asn Lys Arg Leu Ser Glu Phe Gly Leu Ile Gln Glu
 275 280 285
 Lys Phe Ala Leu Met Ala Gln Lys Ala Tyr Val Met Glu Ser Met Thr
 290 295 300
 Tyr Leu Thr Ala Gly Met Leu Asp Gln Pro Gly Phe Pro Asp Cys Ser
 305 310 315 320
 Ile Glu Ala Ala Met Val Lys Val Phe Ser Ser Glu Ala Ala Trp Gln
 325 330 335
 Cys Val Ser Glu Ala Leu Gln Ile Leu Gly Gly Leu Gly Tyr Thr Arg
 340 345 350
 Asp Tyr Pro Tyr Glu Arg Ile Leu Arg Asp Thr Arg Ile Leu Leu Ile
 355 360 365
 Phe Glu Gly Thr Asn Glu Ile Leu Arg Met Tyr Ile Ala Leu Thr Gly
 370 375 380
 Leu Gln His Ala Gly Arg Ile Leu Thr Thr Arg Ile His Glu Leu Lys
 385 390 395 400
 Gln Ala Lys Val Ser Thr Val Met Asp Thr Val Gly Arg Arg Leu Arg
 405 410 415
 Asp Ser Leu Gly Arg Thr Val Asp Leu Gly Leu Thr Gly Asn His Gly

actcgtcacc tagagctctgg taaattgccaa aagctggcag ttgagactcc tttagtttga
 900
 aaaatgatata caccttccca ttttctttca taccactgtc caccagaata aagagaatct
 960
 tcccctggaa gagcttggct gccttctgggt atctgtgcat gttctcttca tactctgggg
 1020
 aggccttggt cattatcagg aggagatgaa tctgaattac gctgttgaat aacccaatca
 1080
 cagtcacagg gttggagcag gagcaggaga gggacaatgg aagctgcccc gtccagggtc
 1140
 atgttctctc tatttctect cactgttgag ctggctgcag aagttgtgtc agaagttgag
 1200
 aaatcctcag atggtctctg tgctgcccag gaacccacgt ggctcacaga tgtcccagct
 1260
 gccatggaat tcattgtctc cactgagggt gctgtcatag gcttcttcca ggatttagaa
 1320
 ataccagcag tgcccatact ccatagcatg gtgcacaaaat tcccaggcgt gtcatttggg
 1380
 atcagcactg attctgaggt tctgacacac tacaacatca ctgggaacac catctgcctc
 1440
 ttctgcctgg tagacaatga acaactgaat ttagaggacg aagacattga aagcattgat
 1500
 gccaccaaat tgagccgttt cattgagatc aacagcctcc acatgggtgac agagtacaac
 1560
 cctgtgactg tgattggggt attcaacagc gtaattcaga ttcatctcct cctgataatg
 1620
 aacaaggcct cccagagta tgaagagaac atgcacagat accagaaggc agccaagctc
 1680
 ttcaggggga agattctctt tattctgggtg gacagtggta tgaagaaaaa tgggaagggtg
 1740
 atatcatctt tcaaaactaaa ggagtctcaa ctgccagctt tggcaattta ccagactcta
 1800
 gatgacgagt gggatacact gccacagcga gaagtttccg tagagcatgt gcacaaacttt
 1860
 tgtgattgat tctaagtgg aaaattgttg aaagaaaatc gtgaatcgaa aagaaagact
 1920
 cccaagggtg aactctgact tctccttgga actacatatg gcc
 1964

<210> 3130

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3130

Met Glu Ala Ala Pro Ser Arg Phe Met Phe Leu Leu Phe Leu Leu Thr
 1 5 10 15
 Cys Glu Leu Ala Ala Glu Val Ala Ala Glu Val Glu Lys Ser Ser Asp
 20 25 30
 Gly Pro Gly Ala Ala Gln Glu Pro Thr Trp Leu Thr Asp Val Pro Ala
 35 40 45
 Ala Met Glu Phe Ile Ala Ala Thr Glu Val Ala Val Ile Gly Phe Phe
 50 55 60
 Gln Asp Leu Glu Ile Pro Ala Val Pro Ile Leu His Ser Met Val Gln

65		70		75		80
Lys Phe Pro Gly Val Ser Phe Gly Ile Ser Thr Asp Ser Glu Val Leu						
	85			90		95
Thr His Tyr Asn Ile Thr Gly Asn Thr Ile Cys Leu Phe Arg Leu Val						
	100			105		110
Asp Asn Glu Gln Leu Asn Leu Glu Asp Glu Asp Ile Glu Ser Ile Asp						
	115			120		125
Ala Thr Lys Leu Ser Arg Phe Ile Glu Ile Asn Ser Leu His Met Val						
	130			135		140
Thr Glu Tyr Asn Pro Val Thr Val Ile Gly Leu Phe Asn Ser Val Ile						
	145			150		155
Gln Ile His Leu Leu Leu Ile Met Asn Lys Ala Ser Pro Glu Tyr Glu						
	165			170		175
Glu Asn Met His Arg Tyr Gln Lys Ala Ala Lys Leu Phe Gln Gly Lys						
	180			185		190
Ile Leu Phe Ile Leu Val Asp Ser Gly Met Lys Glu Asn Gly Lys Val						
	195			200		205
Ile Ser Phe Phe Lys Leu Lys Glu Ser Gln Leu Pro Ala Leu Ala Ile						
	210			215		220
Tyr Gln Thr Leu Asp Asp Glu Trp Asp Thr Leu Pro Thr Ala Glu Val						
	225			230		235
Ser Val Glu His Val Gln Asn Phe Cys Asp Gly Phe Leu Ser Gly Lys						
	245			250		255
Leu Leu Lys Glu Asn Arg Glu Ser Lys Arg Lys Thr Pro Lys Val Glu						
	260			265		270
Leu						

<210> 3131

<211> 1544

<212> DNA

<213> Homo sapiens

<400> 3131

nnaactccag gacgagacgc ggagcgaccc gcgcacgagc gataggcgcc gaacgtggcc
60
caggccgcgc agaccggcag ctgcgtgggg cgggggctgc gctgagcccg atactgccgg
120
ctccgagctt agcaaaagag cgacttcaga agaagcgaat gcatgtgaaa tcgtctcaag
180
ctacctcgag ctacgccagt ttaatcacc ccagagagcc gaacaactgc gagcgcaatg
240
ggacacaaaa tcatttttgt ttggtctcgg aaagagggtc gtggtcccg acggatgcgc
300
tggttgagg aaaccttga gattcacgac aagcgtaaa gcctggggct tccaacgata
360
ctctgggcag ggatggaagc ctagatgcct caccgcaagg agcggccgag cgggtcctcg
420
cttcacacac acggcagcac cggcaccgag gagggaggaa acatgtcccg gctgtctctc
480
acccggctgc ctgtgtctcc cctggtctgc caggcgatcc cctgcccagc acaactcaca
540
aaatccaatg cgctgttcca cattgatgtg ggcgccacca tgtacaccag cagcctggcc
600

accctcacca aataccctga atccagaatc ggaagacttt ttgatgggtac agagcccatt
 660
 gttttggaca gtctcaaaaca gcactatttc attgacagag atggacagat gttcagatat
 720
 atcttgaatt ttctacgaac atccaaactc ctctattcctg atgatttcaa ggactacact
 780
 ttgttatatg aagaggcaaa atattttcag cttcagccca tgttggtgga gatggaaaaga
 840
 tggaagcagg acagagaaac tggtcgattt tcaaggccct gtgagtgcct cgtcgtgcgt
 900
 gtggcccccag acctcggaga aaggatcacg ctaagcgggt acaaatcctt gatagaagaa
 960
 gtatttccag agatcggcga cgtgatgtgt aactctgtca atgcaggctg gaatcacgac
 1020
 tcgacgcacg tcattcaggtt tccactaaat ggctactgtc acctcaactc agtccaggtc
 1080
 ctcgagaggt tgcagcaaaag aggatttgaa atcgtggggc cctgtggggg aggagtagac
 1140
 cgtgccaggt tcagcgaata cgtccttcgg cgaggaaactga ggcggacgcc cgtgtacc
 1200
 tccgtcatcc ggataaagca agagcctctg gactaaatgg acatatattct tatgcaaaaa
 1260
 ggaaaaacaca cacaaccaat aactcaaaaca aaaaagggac atttatgtgc agttgggaca
 1320
 gcaaacCaag tcctggacgt aaaatcgaat aaaagacaca ttatatccca atagagacca
 1380
 cacctgtatt catatgggaa caattggaat agtgatatcc tcaagggtga aaaaatatat
 1440
 aaatatatat atatatgtca aaaggttaga aatgcaaaaa agaaaaaaaa aaaaagggtga
 1500
 cagccgcagt tgggtgctgtg atagccatga aatatcctgg gcc
 1544

<210> 3132

<211> 283

<212> PRT

<213> Homo sapiens

<400> 3132

Met Pro His Arg Lys Glu Arg Pro Ser Gly Ser Ser Leu His Thr His
 1 5 10 15
 Gly Ser Thr Gly Thr Ala Glu Gly Gly Asn Met Ser Arg Leu Ser Leu
 20 25 30
 Thr Arg Ser Pro Val Ser Pro Leu Ala Ala Gln Gly Ile Pro Leu Pro
 35 40 45
 Ala Gln Leu Thr Lys Ser Asn Ala Pro Val His Ile Asp Val Gly Gly
 50 55 60
 His Met Tyr Thr Ser Ser Leu Ala Thr Leu Thr Lys Tyr Pro Glu Ser
 65 70 75 80
 Arg Ile Gly Arg Leu Phe Asp Gly Thr Glu Pro Ile Val Leu Asp Ser
 85 90 95
 Leu Lys Gln His Tyr Phe Ile Asp Arg Asp Gly Gln Met Phe Arg Tyr
 100 105 110
 Ile Leu Asn Phe Leu Arg Thr Ser Lys Leu Leu Ile Pro Asp Asp Phe

	115		120		125
Lys	Asp	Tyr	Thr	Leu	Leu
130				Tyr	Glu
Pro	Met	Leu	Leu	Glu	Met
145				Arg	Trp
Arg	Phe	Ser	Arg	Pro	Cys
				Glu	Cys
Leu	Gly	Glu	Arg	Ile	Thr
160				Leu	Ser
Val	Phe	Pro	Glu	Ile	Gly
				Asp	Val
Trp	Asn	His	Asp	Ser	Thr
210				His	Val
Cys	His	Leu	Asn	Ser	Val
225				Gln	Val
Phe	Glu	Ile	Val	Gly	Ser
				Cys	Gly
Ser	Glu	Tyr	Val	Leu	Arg
				Arg	Glu
Ser	Val	Ile	Arg	Ile	Lys
				Gln	Glu
				Pro	Leu
				Asp	

<210> 3133

<211> 621

<212> DNA

<213> Homo sapiens

<400> 3133

```

ggatccttgg ggtgttgcct cgcagctgg aaacctctgt ggacagtggc gtctttgccc
60
gagtttttct ctgccccgct aggcctcgtt tctccactcg gcctggcacg ctacgcctgg
120
gtctgatgcc tgccaaggcg aagccaggcg tggagcagcg agaggtgtgt gagtgcagcat
180
gggggtccagc catcgcacac agcaggcagc ctggctgcag tggggcaggc agctccacgc
240
gcagtcctgg ctccctgtga agctgcagct ggaccaggcg tactacaagc agcttccact
300
gcaggcactg gggcaacatg ttggcacctgg aagcttgagg acgctagaaa ccgcagagcc
360
ctaaagaggg tgctcacagc ctggctcagg gagctcctag gtctgggctt cccgaagggc
420
tgcagctctt ctctccttct tcttctcttg tcacctgcaa cgtggtagag aaggagcata
480
tttcagcgct gtttggtgta cactctcttt agccccccg ttcggcagggt cccgagttct
540
tgtgtgcat ccaggaagaa tgagactgaa gtgaaatcag aagaaggccc aggttggagc
600
atcctacgtg atgatttcat g
621

```

<210> 3134

<211> 51

<212> PRT

<213> Homo sapiens

<400> 3134

Ala Arg Asp Ile Phe Gln Arg Cys Leu Cys Tyr Thr Ser Phe Ser Pro
 1 5 10 15
 Ala Val Arg Gln Val Pro Ser Ser Cys Ala Ala Ser Arg Lys Asn Glu
 20 25 30
 Thr Glu Val Lys Ser Glu Glu Gly Pro Gly Trp Thr Ile Leu Arg Asp
 35 40 45
 Asp Phe Met
 50

<210> 3135

<211> 3166

<212> DNA

<213> Homo sapiens

<400> 3135

nnogtgtgtg gatttgagac cgagctcaat gtccagtttg tcagccacat gtcactccac
 60
 gtggacaagg agcagtggat gttttcgaac tgctgcaact cctgcgactt cgtcaccatg
 120
 gaggaagcag agataaagac tcacattggc accaagcaca cagggggaaga caggaagacc
 180
 cccagcgaat caaatagccc ctcttcaccc tccctctcag ctctgagtga ttacgccaac
 240
 agcaaagatg attcagatgg ctcccagaaa aacaagggcg ggaacaatct gctgggcatc
 300
 tctgtcatgc ctgggagcca gccctcactg aacagtgagg aaaagccaga gaaaggggtc
 360
 gaatgtgttt tttgcaactt tgtctgcaag acgaagaaca tgtttgagcg tcactgagc
 420
 atacacctca tcaccggatg gtttgagtgt gatgtgtgcc acaagttcat gaagaccccc
 480
 gaacagctgc tggagcataa gaaatgccac actgtcccca cgggtgggct caactcagga
 540
 cagtgggtgag tttcagactc ctctaggtgc ccattctgca ttattccac caaccgcccc
 600
 gctgccatgg agtgccacct caagaccacac taccagatgg agtacaagtg cccgcatctg
 660
 cagacggtga aagccaacca gctggagctg gagacgcaca cccgggagca cccgctgggc
 720
 aaccactaca agtgcgacca gtgcggctac ctgtccaaga ccgccaacaa gctcatcgag
 780
 cagtgcgcg tccacacggg gagcggggccc ttccactggg accagtgag ctacagctgc
 840
 aagcgcaagg acaatctcaa cctgcacaag aagctgaagc acgccccacg ccagaccttc
 900
 agtcgcgaag agtgcctgtt caagaccaca caccctttcg tcttcagccg ccacgtcaag
 960
 aagcaccaga gtgggggactg ccccgaggag gacaagaagg gcctgtgtcc agcccccaag
 1020
 gaaccggccg gcccgggggc cccgctcctg gtggctggga gctcccgga tctctgtct
 1080

ccccgtcag ttatgtctgc ctcccaggct ctgcagaccg tggccctgtc ggcagcccac
1140
ggcagcagct cagagcccaa cctggcactc aaggctttgg ccttcaacgg ctcccccttg
1200
cgctttgaca agtaccggaa ctccagatctt gcccatctca ttccttgac aatgttatac
1260
ccaagaacc acttggaatc cacattccac cctccccgac ctcagaactgc gcctcccagc
1320
atcccctcac ccaaacactc ctctctggcc tatctcggac tgagagaaag agcagagact
1380
gtctgagggc agccatgttc tgtacaaaa acagagagac aaaagacaaa aaaaaaaaaa
1440
aaaccacaaa acttaaacac aaccccagca ggtgtatgtt gctgcaaac ctacagacc
1500
cgatgggtct ggaacatgtg tactgtatat ctttagtaag gaatagaaaa ttggtctgt
1560
gtgtatacct attgcattga cctgaaagct gctttatcca atcttcagag aggtgaccta
1620
ctgcatactt ctaccttcag aggcattgct ccccagccac ccactccac tctcagcc
1680
tctcgtact tttctctgaa aggaatcttg tcttgtaaa ccctaaagag agtgcctta
1740
atagcaatca gcacttgtaa gcttatatac tgggtgcat tgggttctgt tgggtgaatg
1800
cgggtgtgtg gcgtttgttg attctgaaag agaaagccgt gtgtcgtgtg ccatgacatt
1860
tcatttgac attctttgta ctggcttctt taacagcgat gaacgttctt ttcctcctg
1920
ggttggtcat ccacgacagt ctctccctgt gctcctcat cactttccc tctctcttg
1980
atggctacag agtggtaggg cctgggtgctt agtcgatgaa ggaatggtag ccatctacag
2040
tgctgctgga gatttccgcc agagcgtctg agacctgag ctcatgctt ctctggtgat
2100
gaagaggcga ggaatcaagt gactgatctg gaagaaatat ctgcagcac tgcagctaac
2160
atcacagAAC ttaagtgtgt tttgtgtgtg tgcccacacg tagacaaatg tgcacgtgtc
2220
acacacacag tgcattctt ttaagggca gattatatat atatatgaga tgtattaatt
2280
cagtgggtac catttgtttg caggaaaaaa aaatgtatgt gtgaaaaaat ttatgggtga
2340
taaatccagc caaggagatt aaaaagggtt tggataaatt ctgggtataa atgctcagac
2400
taaaaaaaag aaatggcagt ttgacacagt gctatggtct tgcactagt ttgttttctc
2460
atctgaaaaa aaaaaagtaa aataaaaagg agaaaaatga ctttttttat ggaatgagta
2520
gactgtatgt tgaagattt agccacaacc tctttgacat ataatgaagc aacaaaaagg
2580
tgctgtttag tectatgggt cagtttatgc cctgacaag ttccattgt gttttgccga
2640
tctctgtgct aatcgtggta tcttccatgt tattagtaat tctgtattcc attttgttaa
2700

cgccctggtag atgtaacctg ctaggaggct aacttttatac ttattttaaaa gctcttattt
 2760
 tgtggtcatt aaaatggcaa tttatgtgca gcaactttatt gcagcaggaa gcaggtgtgg
 2820
 gtggttgta aagctctttg ctaatcttaa aaagtaatgg gtgattttaa aagaaaaaag
 2880
 gaaaaaaatc ttggctgaa tatgttcatt gcttgtattt taaaacaac agaatttcca
 2940
 gtagaaaca ggctgaaaga gcaggaagaa atgttctttg tataataatg ggaagtttgg
 3000
 aatataaaag tttatatatt atttatctat tggagaactg gtgtacagga ggaacatttt
 3060
 cttactgtgt tgctgttttc catcatgtgt taccctaaga gttgggggtt tttaaaatct
 3120
 gtttcaccag gggaaaaataa aagcatccct aatgttaaaa aaaaaa
 3166

<210> 3136

<211> 278

<212> PRT

<213> Homo sapiens

<400> 3136

Val	Ser	Asp	Ser	Ser	Arg	Cys	Pro	Phe	Cys	Ile	Tyr	Ser	Thr	Asn	Arg
1				5					10					15	
Pro	Ala	Ala	Met	Glu	Cys	His	Leu	Lys	Thr	His	Tyr	Gln	Met	Glu	Tyr
			20					25					30		
Lys	Cys	Pro	Ile	Cys	Gln	Thr	Val	Lys	Ala	Asn	Gln	Leu	Glu	Leu	Glu
		35					40					45			
Thr	His	Thr	Arg	Glu	His	Arg	Leu	Gly	Asn	His	Tyr	Lys	Cys	Asp	Gln
		50				55					60				
Cys	Gly	Tyr	Leu	Ser	Lys	Thr	Ala	Asn	Lys	Leu	Ile	Glu	His	Val	Arg
65					70					75				80	
Val	His	Thr	Gly	Ser	Gly	Pro	Phe	His	Trp	Asp	Gln	Cys	Ser	Tyr	Ser
			85						90					95	
Cys	Lys	Arg	Lys	Asp	Asn	Leu	Asn	Leu	His	Lys	Lys	Leu	Lys	His	Ala
			100					105					110		
Pro	Arg	Gln	Thr	Phe	Ser	Cys	Glu	Glu	Cys	Leu	Phe	Lys	Thr	Thr	His
		115				120						125			
Pro	Phe	Val	Phe	Ser	Arg	His	Val	Lys	Lys	His	Gln	Ser	Gly	Asp	Cys
		130				135					140				
Pro	Glu	Glu	Asp	Lys	Lys	Gly	Leu	Cys	Pro	Ala	Pro	Lys	Glu	Pro	Ala
145					150					155				160	
Gly	Pro	Gly	Ala	Pro	Leu	Leu	Val	Val	Gly	Ser	Ser	Arg	Asn	Leu	Leu
			165						170					175	
Ser	Pro	Leu	Ser	Val	Met	Ser	Ala	Ser	Gln	Ala	Leu	Gln	Thr	Val	Ala
		180						185					190		
Leu	Ser	Ala	Ala	His	Gly	Ser	Ser	Ser	Glu	Pro	Asn	Leu	Ala	Leu	Lys
		195				200						205			
Ala	Leu	Ala	Phe	Asn	Gly	Ser	Pro	Leu	Arg	Phe	Asp	Lys	Tyr	Arg	Asn
		210				215					220				
Ser	Asp	Phe	Ala	His	Leu	Ile	Pro	Leu	Thr	Met	Leu	Tyr	Pro	Lys	Asn
225					230					235				240	
His	Leu	Asp	Leu	Thr	Phe	His	Pro	Pro	Arg	Pro	Gln	Thr	Ala	Pro	Pro

actgatgtgc gccgaagata ctgggaatgcc tatatgcttt tctaccaaag ggtgtctgat
1320
cagaactccc cagtattacc aaagaaaagt cgagtcagcg ttgtacggca ggaagctgag
1380
gattctctctc tgtcagctcc atcttcacca gaaatttcac ctacgtcatc cctcggcccc
1440
cataggccga acaatgaccg gctgtctatt cttaccaagc tggttaaaaa aggcgagaag
1500
aaaggactgt ttgtggagaa aatgcctgct cgaatatacc agatggtgag agatgagaac
1560
ctcaagttta tgaagaatag agatgtatcc agtagtgatt atttcagttt tgttttgtct
1620
ttagcttcat tgaatgctac taaattaaag catccatatt atccttgcat ggcaagggtg
1680
agcttacagc ttgctattca attccttttt caaacttacc tacggacaaa gaagaaactc
1740
agggttgata ctgaagaatg gattgctacc attgaagcat tgctttcaaa aagttttgat
1800
gcttgtcagt ggttagttga atattttatt agttctgaag gacgagaatt gataaagatt
1860
ttcttactgg agtgcaatgt gagagaagta cgagttgctg tggccaccat tctggagaaa
1920
accctagaca gtgccttggt ttatcaggat aagttaaaaa gccttcacat gttactggag
1980
gtactacttg ctctgttgga caaagacgtc ccagaaaaatt gtaaaaaactg tgctcagtac
2040
tttttctctg tcaacacttt tgtacaaaag caaggaatta gggctggaga tcttctctctg
2100
aggcattcag ctctgcggca catgatcagc ttcctctcag gggccagtcg gcaaaacaat
2160
cagatcacgc gatggagttc agcacaaagc cgagaatttg ggaatcttca caatacagtg
2220
gcgttacttg ttttgcattc agatgtctca tcccaaagga atgtgtctcc tggcatattt
2280
aagcaacgac caccatttag cattgctccc tcaagccctc tgttgccctc ccatgaggag
2340
gtagaagcct tggtgttcat gtctgaaggg aaaccttacc tgtagagagt aatgtttgct
2400
tgcggggagc tgacaggctc gctcttgga ctcattgaga tggtagtgta ctgctgttc
2460
tgtaatgagc atttttcctt cacaatgctg catttcatta agaaccaact agaaaaggct
2520
ccacctcatg agttaagaa tacgttccaa ctacttcag aaatatgggt tattgaagat
2580
cctatacaag cagagcgagt taaatttggt tttagacag aaaaatggatt actagctttg
2640
atgcaccaca gtaatcatgt ggacagtagt cgctgctacc agtgtgtcaa atttcttgct
2700
actcttgctc aaaagtgtcc tgcagctaag gactacttca aggagaattc ccaccactgg
2760
agctgggctg tgcagtggtc acagaagaag atgtcagaac attactggac accacagagt
2820
aatgtctcta atgaaacatc aactggaaaa accttcagc gaaccatttc agctcaggac
2880

gcgttagcgt atgccacagc ttgttgaat gaaaagagc aatcaggaag cagtaatggg
2940
tcggagagta gtccctgccaa tgagaacgga gacaggcatc tacagcaggg ttcagaatct
3000
cccatgatga ttggtgagtt gagaagtgc cttgatgatg ttgatcccta gaggaacatg
3060
ccagcctga gaggagtcaa gacacaatac tggatgctca gcacctctctt ggaatcagaa
3120
tctcgaaccc ttggaagag cctggagatt ggactgggaa agctgctgtg acttgggcgg
3180
atcgtgtatt tctcaaggaa agcattttta agccactaga aggtttggga gctgtttggc
3240
agtgggagaa ctccggcatg tggatcagct gtcccgaggag cgtgtgtctat atgtggattc
3300
acattttctg ggagatttct ggaatatagag ccagtggcag acttttttgt tacacgaaca
3360
tacaagagtg agcataaagc tgtgtcttct tctacgatgc tacaaaagaa attcctttgg
3420
tttttatatt ttaagaaaaa gcaagctgct tttagatgat tgggggcaaa tttttaatct
3480
tgcaagtaata ttaaacagga atatccaatt taaaatgatg taaagatgta ataaaattcc
3540
ttttcattgt aaaatagtaa ttaagtcaat ttacacagac ctttgtatct aatatgtctc
3600
cctatttgta tagaatttca gatgggtcta gatgagaacc ctatgcataa gcttggtatc
3660
tgatgaaagg ttaccaggat caggatcaaa aattgggaaa tactaagctc ttgaagatat
3720
ttttctgata taattagatt gaaaagagca attttgaaaa tgcgtgtgtc tccagaagta
3780
cagggtgcat tatttgacat caattactta aagaagttat gagtgtgtcc ccaaacagat
3840
tttaaaaaa gcaaaataaa agcactttaa gatataattt tactgagttt aacttcacag
3900
aattatcttt ttaatgcttg gagacatatt gaataaactg tagtcttaaa tcatgtgatc
3960
tgcaatcgtt tgcttttgct taaaacataa ttactgaaac ccttggtatt ggtgttatat
4020
gaagttaact atttgagttg gtacacactg cttgtgagtt tcatagttat tgtaatgcag
4080
agaaggaatt tgagaatttg tttctctca acatgactaa ttaacactga aaagtcagtc
4140
aagggttaag atttatttct ccagaaataa atataaagca attgaataac catccattta
4200
gtcgtatttc caaagtatag caccattcac tcatttatac cagctccctt ttatggtgtg
4260
ggggagaggt ttacacccac atatttcata tatattttgt acattttgta tttgaaattg
4320
ctcacatttt cggccctgtt ttgcctttag ttacaggctc tgccttattt tcatctcacc
4380
atgcacagaa ctaggagacc ttagggaagt ccagggttttc actgtcagat ttgccaaagt
4440
acagaggcgc agccagccct gaagtgcctg tctggctgct gtggcattgt gtgggcattg
4500

gccaggcag atggcatctc attactgtgc tctcgccatg gccagcttt ttcattctct
 4560
 ggcatgtagg gtttctgtgc tgcagacct cattgttatt ctgtgacttg ctggagggtg
 4620
 gcagtgccct ttgtcaaaac cactgagaag atggaagggc cagcacttaa gagcagaact
 4680
 gtacccttag agaaacggac agaggcgagt ggcaaacttc agacgggttc aatgggtctg
 4740
 cagtttgaat tgtgatgttc taccattggg tttgagtacg tgaatacttc ctgctctact
 4800
 gtttccctta ccttattctc accttctctc cgcccacatc ctccaccaaga gattgtgtgg
 4860
 gacatgacct tgaatgctg gcgatgatcc aacttggtat atcatcgctg gcgactgcac
 4920
 tctcaggagc ccaaaatcag gagtgaatt gccacttcta gtcagccctt tatttcctat
 4980
 ggaaacaacg ccttccgcac ccttagcacc tgccgtcttc actgtaaagc ttcacagga
 5040
 tcgtccaccg tgtatattat acgcttcaga tcatgttgct tatattgttg ctgcaatgac
 5100
 catcggtttc actttgctgg taaccacttg attgctgaca gctacagtca atgaacctgc
 5160
 tgatgacttt ttttaatgta gtacaacagt gacagttatg acaggcttac cttggaagag
 5220
 ttgtcatttt tactgcctaa ttttggatg aagatgtttt tataaacctt tcaaaatggt
 5280
 ctgcaaacag agcaggaatt gcacaattaa ctcaactcaa taatgctgtg tgttctcaag
 5340
 aagctccctt agtgaggcgg atcttaagat ggccgattct gcccgttgaa ggcatcctgg
 5400
 gaaagaaaac aagcatocca gcgggcatct caccacgact tctcctggag tcttcacacg
 5460
 gtcatgaca actacagtca gttttaggaa cttagagtgc gtatcatcag acttacctg
 5520
 tcttcgcccc ccttcctctg taacatcgag gtgtgtgcag ttacctcttg agcttggaa
 5580
 aagcagactg gaattttctt ctgctacctc ttgtgtataa aatcttgttt ataaaaatct
 5640
 aaaaggaagt agatacacta gggaagaacc ttaattctaa atttgggtca tgtgtggcaa
 5700
 agttcttagc ttctaagagt ataaaaataa tttttcaaaa acaaaaaaaaa accaaaaaaa
 5760
 aaaaaaaaaa aaa
 5773

<210> 3138

<211> 977

<212> FRT

<213> Homo sapiens

<400> 3138

Leu Ala Asp Ser Ser Pro Ser Asn Leu Gln Ile Ile Ile Lys Glu Leu
 1 5 10 15
 Leu Ser Met His His Gln Pro Asp Pro Ala Leu Thr Lys Glu Phe Asp

450	455	460
Phe Val Glu Lys Met	Pro Ala Arg Ile Tyr	Gln Met Val Arg Asp Glu
465	470	475
Asn Leu Lys Phe Met	Lys Asn Arg Asp Val Tyr	Ser Ser Asp Tyr Phe
485	490	495
Ser Phe Val Leu Ser	Leu Ala Ser Leu Asn Ala Thr Lys	Leu Lys His
500	505	510
Pro Tyr Tyr Pro Cys	Met Ala Lys Val Ser	Leu Gln Leu Ala Ile Gln
515	520	525
Phe Leu Phe Gln Thr	Tyr Leu Arg Thr Lys Lys	Lys Leu Arg Val Asp
530	535	540
Thr Glu Glu Trp Ile	Ala Thr Ile Glu Ala Leu Leu Ser	Lys Ser Phe
545	550	555
Asp Ala Cys Gln Trp	Leu Val Glu Tyr Phe Ile	Ser Ser Glu Gly Arg
565	570	575
Glu Leu Ile Lys Ile	Phe Leu Leu Glu Cys Asn Val Arg	Glu Val Arg
580	585	590
Val Ala Val Ala Thr	Ile Leu Glu Lys Thr Leu Asp Ser	Ala Leu Phe
595	600	605
Tyr Gln Asp Lys Leu	Lys Ser Leu His Gln Leu Leu Glu Val	Leu Leu
610	615	620
Ala Leu Leu Asp Lys	Asp Val Pro Glu Asn Cys Lys Asn Cys	Ala Gln
625	630	635
Tyr Phe Phe Leu Phe	Asn Thr Phe Val Gln Lys Gln Gly	Ile Arg Ala
645	650	655
Gly Asp Leu Leu Leu	Arg His Ser Ala Leu Arg His Met	Ile Ser Phe
660	665	670
Leu Leu Gly Ala Ser	Arg Gln Asn Asn Gln Ile Arg Arg Trp Ser	Ser
675	680	685
Ala Gln Ala Arg Glu	Phe Gly Asn Leu His Asn Thr Val Ala Leu Leu	
690	695	700
Val Leu His Ser Asp	Val Ser Ser Gln Arg Asn Val Ala Pro Gly Ile	
705	710	715
Phe Lys Gln Arg Pro	Pro Ile Ser Ile Ala Pro Ser Ser Pro Leu Leu	
725	730	735
Pro Leu His Glu Glu	Val Glu Ala Leu Leu Phe Met Ser Glu Gly Lys	
740	745	750
Pro Tyr Leu Leu Glu	Val Met Phe Ala Leu Arg Glu Leu Thr Gly Ser	
755	760	765
Leu Leu Ala Leu Ile	Glu Met Val Val Tyr Cys Cys Phe Cys Asn Glu	
770	775	780
His Phe Ser Phe Thr	Met Leu His Phe Ile Lys Asn Gln Leu Glu Thr	
785	790	795
Ala Pro Pro His Glu	Leu Lys Asn Thr Phe Gln Leu Leu His Glu Ile	
805	810	815
Leu Val Ile Glu Asp	Pro Ile Gln Ala Glu Arg Val Lys Phe Val Phe	
820	825	830
Glu Thr Glu Asn Gly	Leu Leu Ala Leu Met His His Ser Asn His Val	
835	840	845
Asp Ser Ser Arg Cys	Tyr Gln Cys Val Lys Phe Leu Val Thr Leu Ala	
850	855	860
Gln Lys Cys Pro Ala	Ala Lys Glu Tyr Phe Lys Glu Asn Ser His His	
865	870	875
Trp Ser Trp Ala Val	Gln Trp Leu Gln Lys Lys Met Ser Glu His Tyr	

[illegible]

```
<210> 3139
<211> 503
<212> DNA
<213> Homo sapiens
```

```

400> 3139
nggatccctct gtttaggact gacgggtgct gtggactctt atttttggcg gcagctcact
60
tggccggaag gaaaggtgct ttgtatacac actgtctctga acaaagctc cactggggg
120
acctcccgcg tgctatggta ctctactaca gccctgcccc gcggcctggg ctgcagcctg
180
ctcttcaccc ccttgggctt ggtagacaga aggacgcacg cgccgacggt gctggcactg
240
ggcttcattg cactctactc cctctcgcca cacaaggagc tacgcttcac catctatgcc
300
ttcccattgc tcaacatcac ggctgccaga ggctgctcct acctgtgagt gctcttttgg
360
tgacatgcac ttttatagtt tcattggaaa caggttcact gatttactgt tgggggggatg
420
tatgtgtgtg ttttaatttt gaaacagggt ctgtctctgt cgcccagctg gagtggggct
480
tactgcaccc ctcaactcct agg
503

```

```
<210> 3140
<211> 115
<212> PRT
<213> Homo sapiens
```

Xaa	Ile	Leu	Cys	Leu	Gly	Leu	Thr	Val	Ala	Val	Asp	Ser	Tyr	Phe	Trp
	1			5					10					15	
Arg	Gln	Leu	Thr	Trp	Pro	Glu	Gly	Lys	Val	Leu	Trp	Tyr	Asn	Thr	Val
			20					25					30		
Leu	Asn	Lys	Ser	Ser	Asn	Trp	Gly	Thr	Ser	Pro	Leu	Leu	Trp	Tyr	Phe
			35				40					45			
Tyr	Ser	Ala	Leu	Pro	Gly	Leu	Gly	Cys	Ser	Leu	Leu	Phe	Ile	Pro	
	50				55					60					
Leu	Gly	Leu	Val	Asp	Arg	Arg	Thr	His	Ala	Pro	Thr	Val	Leu	Ala	Leu

```

65              70              75              80
Gly Phe Met Ala Leu Tyr Ser Leu Leu Pro His Lys Glu Leu Arg Phe
              85              90              95
Ile Ile Tyr Ala Phe Pro Met Leu Asn Ile Thr Ala Ala Arg Gly Cys
              100              105              110
Ser Tyr Leu
              115

```

<210> 3141

<211> 1815

<212> DNA

<213> Homo sapiens

<400> 3141

```

nnattcttgg atgacatccc tcagcatgtc tgagcgactg ctgagggaga aaatgatgcc
60
caggttggcg tccccggccc accggccagg agaggcctgc gctgcacacg cgcagaccga
120
gcatccgcgt caagaggcga agagagcgcg cgctccccac gtctgcgct cctggctgccc
180
gggcattcgt ctcagccgtg actctcgcca ggccggggct ggcgcgccca cgtctgaaga
240
gcgatgcccc gggagatcat caccctgcag ctgggccagt gcggcaacca gattgggttc
300
gagttcttga aacagctgtg cgccgagcat ggtatcagcc ccgagggcat cgtggaggag
360
ttcgccaccg agggcactga ccgcaaggac gtctttttct accaggcaga cgatgagcac
420
taccatcccc gggccgtgct gctggaactg gaaccocggg tgatccactc catcctcaac
480
tccccctatg ccaagctcta caaccagag aacatctacc tgtcggaaca tggaggagga
540
gctggcaaca actgggccag cggattctcc cagggtgaga aaatcatga ggacattttt
600
gacatcatag accgggaggc agatggtagt gacagtctag agggctttgt gctgtgtcac
660
tcatttctg gggggacagg ctctggactg ggttcttacc tcttagaacg gctgaatgac
720
aggatatccta agaagctggt gcagacatac tcagtgtttc ccaaccagga cgagatgagc
780
gatgtggtgg tccagcctta caattcactc ctcacactca agaggctgac gcgaatgca
840
gactgtgtgg tgggtgctga caacacagcc ctgaaccoga ttgccacaga ccgcctgcac
900
atccagaacc catccttctc ccagatcaac cagctgggtg ctaccatcat gtcagccagc
960
accaccaccc tgcgctaccc tggetacatg aacaatgacc tcatcggcct catcgctctg
1020
ctcattccca ccccacggct ccacttcttc atgaccggct acaccccgct cactacagac
1080
cagtcagtgg ccagcgtgag gaagaccacg gtcctggagt tcatgaggcg gctgctgcag
1140
cccaagaacg tgatggtgtc cacaggccga gaccgccaga ccaaccactg ctacatcgcc
1200

```

atcctcaaca tcattccaggg agaggtggac cccacccagg tccacaagag cttgcagagg
 1260
 atccgggaac gcaagtggc caacttcac cgtggggcc cgcagcagcat ccaggtggcc
 1320
 ctgtcgagga agtctccta cctgccctcg gccaccggg tcagcgggct catgatggcc
 1380
 aaccacacca gcatctctc gctcttcgag agaacctgtc gccagtatga caagctgcgt
 1440
 aagcgggagg ccttctctga gcagttccgc aaggaggaca tgttcaagga caactttgat
 1500
 gagatggaca catccaggga gattgtgcag cagctcatcg atgagtagca tgcggccaca
 1560
 cggccagact acatctctg gggcaccag gagcagttag tccccagga cagggacctt
 1620
 catctgcctt actggttggc ccaagccctg cctgactgac cccccctca gagcacagat
 1680
 cagggacctc acgcattctt ttctcatata catggactct ctgttggcct gcaaacacat
 1740
 ttacttctcc tcttatgaga ctatttatct ttaataaagc actggatata aaaaaaaaaa
 1800
 aaaaaaaaaa aaaaaa
 1815

<210> 3142

<211> 451

<212> PRT

<213> Homo sapiens

<400> 3142

Met Pro Arg Glu Ile Ile Thr Leu Gln Leu Gly Gln Cys Gly Asn Gln
 1 5 10 15
 Ile Gly Phe Glu Phe Trp Lys Gln Leu Cys Ala Glu His Gly Ile Ser
 20 25 30
 Pro Glu Gly Ile Val Glu Glu Phe Ala Thr Glu Gly Thr Asp Arg Lys
 35 40 45
 Asp Val Phe Phe Tyr Gln Ala Asp Asp Glu His Tyr Ile Pro Arg Ala
 50 55 60
 Val Leu Leu Asp Leu Glu Pro Arg Val Ile His Ser Ile Leu Asn Ser
 65 70 75 80
 Pro Tyr Ala Lys Leu Tyr Asn Pro Glu Asn Ile Tyr Leu Ser Glu His
 85 90 95
 Gly Gly Gly Ala Gly Asn Asn Trp Ala Ser Gly Phe Ser Gln Gly Glu
 100 105 110
 Lys Ile His Glu Asp Ile Phe Asp Ile Ile Asp Arg Glu Ala Asp Gly
 115 120 125
 Ser Asp Ser Leu Glu Gly Phe Val Leu Cys His Ser Ile Ala Gly Gly
 130 135 140
 Thr Gly Ser Gly Leu Gly Ser Tyr Leu Leu Glu Arg Leu Asn Asp Arg
 145 150 155 160
 Tyr Pro Lys Lys Leu Val Gln Thr Tyr Ser Val Phe Pro Asn Gln Asp
 165 170 175
 Glu Met Ser Asp Val Val Val Gln Pro Tyr Asn Ser Leu Leu Thr Leu
 180 185 190
 Lys Arg Leu Thr Gln Asn Ala Asp Cys Val Val Val Leu Asp Asn Thr

```

      195              200              205
Ala Leu Asn Arg Ile Ala Thr Asp Arg Leu His Ile Gln Asn Pro Ser
  210              215              220
Phe Ser Gln Ile Asn Gln Leu Val Ser Thr Ile Met Ser Ala Ser Thr
  225              230              235
Thr Thr Leu Arg Tyr Pro Gly Tyr Met Asn Asn Asp Leu Ile Gly Leu
      245              250              255
Ile Ala Ser Leu Ile Pro Thr Pro Arg Leu His Phe Leu Met Thr Gly
  260              265              270
Tyr Thr Pro Leu Thr Thr Asp Gln Ser Val Ala Ser Val Arg Lys Thr
  275              280              285
Thr Val Leu Asp Val Met Arg Arg Leu Leu Gln Pro Lys Asn Val Met
  290              295              300
Val Ser Thr Gly Arg Asp Arg Gln Thr Asn His Cys Tyr Ile Ala Ile
  305              310              315
Leu Asn Ile Ile Gln Gly Glu Val Asp Pro Thr Gln Val His Lys Ser
      325              330              335
Leu Gln Arg Ile Arg Glu Arg Lys Leu Ala Asn Phe Ile Pro Trp Gly
  340              345              350
Pro Ala Ser Ile Gln Val Ala Leu Ser Arg Lys Ser Pro Tyr Leu Pro
  355              360              365
Ser Ala His Arg Val Ser Gly Leu Met Met Ala Asn His Thr Ser Ile
  370              375              380
Ser Ser Leu Phe Glu Arg Thr Cys Arg Gln Tyr Asp Lys Leu Arg Lys
  385              390              395
Arg Glu Ala Phe Leu Glu Gln Phe Arg Lys Glu Asp Met Phe Lys Asp
      405              410              415
Asn Phe Asp Glu Met Asp Thr Ser Arg Glu Ile Val Gln Gln Leu Ile
  420              425              430
Asp Glu Tyr His Ala Ala Thr Arg Pro Asp Tyr Ile Ser Trp Gly Thr
  435              440              445
Gln Glu Gln
  450

```

<210> 3143

<211> 356

<212> DNA

<213> Homo sapiens

<400> 3143

```

gctagctacc aaaaaggcca ggagaaggaa gagcaacgtc tcaagtgtcag gagggggccc
60
ggagacagac cctctcggtt ggagctctggg agtgggtgtgg ttgctgcttg ggctgggctg
120
caggcctgag ctccctggctg gtgggaaggg gaggtgctgt gtccacagtg tgggggtgct
180
tcacgggttaa ccaagccatc ccccatgctg ggctgagggc actagcggaa ttgagagccct
240
cagaaaccca ggtgctgctg tgtgaggctg togcagccac gaagatgacc atgactgcaa
300
gggctgtgag gggccccctg agcgtctcagc agcactaaca gataggaacc acgcgt
356

```

<210> 3144

<211> 81
 <212> PRT
 <213> Homo sapiens

<400> 3144
 Met Val Ile Phe Val Ala Ala Thr Ala Ser His Ser Ser Thr Trp Val
 1 5 10 15
 Ser Glu Ala Leu Asn Ser Ala Ser Ala Ser Arg Pro Ala Trp Gly Met
 20 25 30
 Ala Trp Leu Thr Val Lys His Pro His Thr Val Asp Gln Gln Pro Pro
 35 40 45
 Leu Pro Thr Ser Gln Glu Leu Arg Pro Ala Ala Gln Pro Lys Gln Gln
 50 55 60
 Pro His His Ser Gln Thr Pro Pro Gln Arg Val Cys Leu Arg Ala Pro
 65 70 75 80
 Ser

<210> 3145
 <211> 436
 <212> DNA
 <213> Homo sapiens

<400> 3145
 taaaagcccg gagccgctca gctatggaga agctgcgctc caaaactcca ctccggcctcc
 60
 atccgaagag ccgattacc agctgctcgg gagggccaag caggaccggg ggaggccaaa
 120
 ctccgaggag ccgctccac ctgccctcag gaggggtgtt aaaaaggagg ttgccaccgt
 180
 ttacgcacct gccctcagtg ccaggggccc cgagcctggt ttgtcagact ctgcagccgc
 240
 cagccagtgg tcaactctgcc cggcagatga cgagcggagg agagccacac atctcaacgg
 300
 gctccaggcg cctctggaaa ctgccctggc ctgctcacco cagatgcagt gcctgtcccc
 360
 cgaatgtagt gagcagccgt cgcagactca caccgccggc gggctgggga accagctaag
 420
 tcccacagcg gttgct
 436

<210> 3146
 <211> 131
 <212> PRT
 <213> Homo sapiens

<400> 3146
 Met Glu Lys Leu Arg Ser Lys Thr Pro Leu Gly Leu His Pro Lys Ser
 1 5 10 15
 Pro Ile Thr Ser Cys Ser Gly Gly Pro Ser Arg Thr Gly Gly Gly Gln
 20 25 30
 Thr Pro Arg Ser Pro Leu His Leu Pro Ser Gly Gly Cys Leu Lys Arg
 35 40 45
 Arg Leu Pro Pro Phe Thr His Leu Pro Ser Val Pro Gly Pro Pro Ser


```

      50              55              60
Leu Val Cys Gln Thr Leu Gln Pro Pro Ala Ser Gly His Ser Ala Arg
65              70              75              80
Gln Met Thr Ser Gly Gly Glu Pro His Ile Ser Thr Gly Ser Arg Arg
      85              90              95
Pro Arg Lys Leu Pro Trp Pro Ala His Pro Arg Cys Ser Ala Cys Pro
      100              105              110
Pro Asn Val Val Ser Ser Arg Arg Arg Leu Thr Pro Arg Arg Gly Trp
      115              120              125
Gly Thr Ser
      130

<210> 3147
<211> 3106
<212> DNA
<213> Homo sapiens

<400> 3147
cacacggcct gggaggcagc cgtctgtgca gcgagcagcc ggcgcgggga ggccgcagtg
60
cacggggcgt cacagtcggc aggcagcatg gggaaaggag ggaaccaggg cgagggggcc
120
gcgagcgcg aggtgtcggt gccacacctc agctggggag agattcagaa gcataacctg
180
cgcacgcaca ggtggctggt cattgaccgc aaggtttaca acatcaccaa atgtgccatc
240
cagcaccccg ggggccagcg ggtcatcggg cactacgctg gagaagatgc aacggatgcc
300
ttccggcgct tccacctga cctggaattc gtgggcaagt tcttgaaacc cctgctgatt
360
ggtgaactgg ccccgaggga gccagccag gaccacggca agaactcaaa gatcactgag
420
gaettccggg ccttgaggaa gacggctgag gacatgaacc tgttcaagac caaccacgtg
480
tttctctctc tctctctggc ccacatcacc gccctggaga gcattgcatg gttcactgtc
540
ttttactttg gcaatggctg gattcctacc ctcatcacgg cctttgtcct tgctacctct
600
caggcccaag ctggatggct gcaacatgat tatggccacc tgtctgtcta cagaaaacc
660
aagtgaacc accttgtcca caaattcgctc attggccact taaagggtgc ctctgccaac
720
tgggtgaatc atcgccactt ccagcaccac gccaaagccta acatcttcca caaggatccc
780
gatgtgaaca tgctgcacgt gtttgtctcg ggccaatggc agcccatcga gtacggcaag
840
aagaagctga aatacctgcc ctacaatcac cagcacgaat acttcttctc gattgggccg
900
ccgctgtctc tccccatgta ttccagtgac cagatcatca tgaccatgat cgctccataag
960
aactgggttg acctggcctg ggcgctcagc tactacatcc ggttcttcat cactacatc
1020
cctttctacg gcactctggg agccctcctt ttcctcaact tcatcagggt cctggagagc
1080

```

cactgggttg tgtgggtcac acagatgaat cacatcgtca tggagattga ccaggaggcc
1140
taccgtgact ggttcagtag ccagctgaca gccacctgca acgtggagca gtctttcttc
1200
aacgactgggt tcagttggaca ccttaacttc cagattgagc accacctctt cccaccatg
1260
ccccggcaca acttacacaa gatcgccccg ctggtgaagt ctctatgtgc caagcatggc
1320
attgaatacc aggagaagcc gctactgagg gccctgctgg acatcatcag gtccctgaag
1380
aagtctggga agctgtggct ggacgcctac cttcacaaat gaagccacag cccccggac
1440
accgtgggga aggggtgcag gtggggtgat ggccagagga atgatgggct tttgttttga
1500
gggggtgtccg agagggtgggt gtatgcactg ctcacggacc ccatgttgga tctttctccc
1560
ttctctctct cctttttctc ttccatctc ccccatagca cctgcccctc atgggacctg
1620
ccctccctca gccgtcagcc atcagccatg gccctcccag tgccctcctag cccctctctc
1680
caaggagcag agagggtggcc accgggggtg gctctgtctt acctccactc tctgcccta
1740
aagatgggag gagaccagcg gtccatgggt ctggcctgtg agtctccctt tgcagcctgg
1800
tcactaggca tcccccccg tttggttctt cagatgctct tggggttcat aggggcagggt
1860
cctagtcggg cagggcccct gacctcccg gcttggtctt actctccctg acggctgccca
1920
ttgggtccacc cttccataga gaggcctgct ttgttacaaa gctcgggtct cctctctgca
1980
gtcgggttaa gtacccgagg cctctcttaa gatgtccagg gccccaggcc cgccgggcaca
2040
gccagcccaa accttgggcc ctggaagagt cctccacccc atcactagag tgctctgacc
2100
ctgggcttct acggggccca ttccaccgce tcccacact gagcctgtga ccttggggacc
2160
aaagggggag tccctcgtct cttgtgactc agcagaggca gtggccacgt tcagggagggg
2220
gccgctgggc ctggaggctc agccacacct ccagcttttc ctcagggtgt cctgaggctc
2280
aagattcttg agcaatctga cctctctcca aaggctctgt tatcagctgg cgagtccag
2340
ccaatccctg gccatttggc ccagggggac gtgggcccctg caggctgcag gagggacctg
2400
gagctgggag gtctcgtccc agccctcccc atctcggggc tgctgtgtgg acggcgctgc
2460
ctcaggcact ctctgtctg aacctgccct tactgtgttt aacctgttgc tccaggatgc
2520
attctgtaga gaggggggcg cagggctggg ccttgtgaca atctgccttt caccacatgg
2580
ccttcctctg gtggccctga ctgtcaggga gggccaggga ggcagagcgg gagggagctc
2640
caggaggagg ctgcctcgag gggctgggga gggggtacct catgaggacc aggggtggagc
2700

tgagaagagg aggaggtggg ggctggaggt gctggtagct gaggggacgg gcaagtggaga
 2760
 ggggaggagg ggaagtccctg ggaggatcct gagctgctgt tgcagtctaa cccactaatc
 2820
 agttcttaga ttcaggggaa gggcaggcac caacaactca gaatgggggc tttcggggag
 2880
 ggcgccctagt cccccagct ctaagcagcc aggaggggacc tgcattctaa catctggggt
 2940
 gccatggcaa tggcatgccc cccagctact gtatgcccc gacccccgca gaggcagaat
 3000
 gaaccatag ggagctgac gtaatgttta tcattgttact tccccacccc tacatttttt
 3060
 gaaataaaat aaggaatttt attctcaaaa aaaaaaaaaa aaaaaa
 3106

<210> 3148

<211> 444

<212> PRT

<213> Homo sapiens

<400> 3148

Met	Gly	Lys	Gly	Gly	Asn	Gln	Gly	Glu	Gly	Ala	Ala	Glu	Arg	Glu	Val
1			5					10				15			
Ser	Val	Pro	Thr	Phe	Ser	Trp	Glu	Glu	Ile	Gln	Lys	His	Asn	Leu	Arg
		20					25				30				
Thr	Asp	Arg	Trp	Leu	Val	Ile	Asp	Arg	Lys	Val	Tyr	Asn	Ile	Thr	Lys
	35					40					45				
Trp	Ser	Ile	Gln	His	Pro	Gly	Gly	Gln	Arg	Val	Ile	Gly	His	Tyr	Ala
	50				55					60					
Gly	Glu	Asp	Ala	Thr	Asp	Ala	Phe	Arg	Ala	Phe	His	Pro	Asp	Leu	Glu
65				70				75						80	
Phe	Val	Gly	Lys	Phe	Leu	Lys	Pro	Leu	Leu	Ile	Gly	Glu	Leu	Ala	Pro
			85					90					95		
Glu	Glu	Pro	Ser	Gln	Asp	His	Gly	Lys	Asn	Ser	Lys	Ile	Thr	Glu	Asp
		100						105					110		
Phe	Arg	Ala	Leu	Arg	Lys	Thr	Ala	Glu	Asp	Met	Asn	Leu	Phe	Lys	Thr
	115					120					125				
Asn	His	Val	Phe	Phe	Leu	Leu	Leu	Leu	Ala	His	Ile	Ile	Ala	Leu	Glu
	130				135						140				
Ser	Ile	Ala	Trp	Phe	Thr	Val	Phe	Tyr	Phe	Gly	Asn	Gly	Trp	Ile	Pro
145				150					155					160	
Thr	Leu	Ile	Thr	Ala	Phe	Val	Leu	Ala	Thr	Ser	Gln	Ala	Gln	Ala	Gly
		165						170						175	
Trp	Leu	Gln	His	Asp	Tyr	Gly	His	Leu	Ser	Val	Tyr	Arg	Lys	Pro	Lys
		180					185						190		
Trp	Asn	His	Leu	Val	His	Lys	Phe	Val	Ile	Gly	His	Leu	Lys	Gly	Ala
	195					200						205			
Ser	Ala	Asn	Trp	Trp	Asn	His	Arg	His	Phe	Gln	His	His	Ala	Lys	Pro
	210				215						220				
Asn	Ile	Phe	His	Lys	Asp	Pro	Asp	Val	Asn	Met	Leu	His	Val	Phe	Val
225				230					235					240	
Leu	Gly	Glu	Trp	Gln	Pro	Ile	Glu	Tyr	Gly	Lys	Lys	Lys	Leu	Lys	Tyr
		245						250					255		
Leu	Pro	Tyr	Asn	His	Gln	His	Glu	Tyr	Phe	Phe	Leu	Ile	Gly	Pro	Pro

```

                260                265                270
Leu Leu Ile Pro Met Tyr Phe Gln Tyr Gln Ile Ile Met Thr Met Ile
275                280                285
Val His Lys Asn Trp Val Asp Leu Ala Trp Ala Val Ser Tyr Tyr Ile
290                295                300
Arg Phe Phe Ile Thr Tyr Ile Pro Phe Tyr Gly Ile Leu Gly Ala Leu
305                310                315                320
Leu Phe Leu Asn Phe Ile Arg Phe Leu Glu Ser His Trp Phe Val Trp
325                330                335
Val Thr Gln Met Asn His Ile Val Met Glu Ile Asp Gln Glu Ala Tyr
340                345                350
Arg Asp Trp Phe Ser Ser Gln Leu Thr Ala Thr Cys Asn Val Glu Gln
355                360                365
Ser Phe Phe Asn Asp Trp Phe Ser Gly His Leu Asn Phe Gln Ile Glu
370                375                380
His His Leu Phe Pro Thr Met Pro Arg His Asn Leu His Lys Ile Ala
385                390                395                400
Pro Leu Val Lys Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Glu
405                410                415                420
Lys Pro Leu Leu Arg Ala Leu Leu Asp Ile Ile Arg Ser Leu Lys Lys
420                425                430
Ser Gly Lys Leu Trp Leu Asp Ala Tyr Leu His Lys
435                440

```

<210> 3149

<211> 1006

<212> DNA

<213> Homo sapiens

<400> 3149

```

ncttcgccgg cgtccccgacc cgaggccgga cccgaggcca gtccccgcgc tgccaccgaa
60
gccagtgcgg ggcctgagag ggacgcgcgc cccggggccc ccgcgcggg caccatgggg
120
gtgcccact ccgcgtctga ggaggtgcgg gagctcgagg gcaagaccgg cttctcatcg
180
gatcagatcg agcagctcca tcggagattt aagcagctga gtggagatca gcctaccatt
240
cgcaaggaga acttcaacaa tgtccccggac ctggagctca accccatccg atccaaaatt
300
gttcgtgcct tcttcgacaa caggaacctg cgcaagggag ccagtggcct ggctgatgag
360
atcaatttcg aggacttctt gaccatcatg tctacttccc ggcccatcga caccaccatg
420
gacgaggaac aggtggagct gtcccgaag gagaagctga gatttctgtt ccacatgtac
480
gactcgga caagcggccg catcactctg gaagaatcgc gaaatgtaaa gtggctgagg
540
agctgctgtc gggaaacctt cacatcgaga aggagtcgcg tcgctccatc gccgacgggg
600
ccatgatgga ggcggccagc gtgtgcatgg ggcagatgga gcctgatcag gtgtacaggg
660
ggatcacctt cgaggacttc ctgaagatct ggcaggggat cgacattgag accaagatgc
720

```

acgtccgctt ccttaacatg gaaacccatgg cctctgtcca ctgacccacc gccacctcgg
 780
 cggagaaaact gcactttgca atggggccgcg ctecccgcggt agctggagca gccacggccc
 840
 ggccgacagc ctcttcctgc agcgccggtat catagccaag gctcgtctgc gcaccttgtg
 900
 tcttgtaggg tatggatatg gggacttcgc tgtttttatc tccaataaaa aaaaaaaaaa
 960
 ggtttgttaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa
 1006

<210> 3150
 <211> 201
 <212> PRT
 <213> Homo sapiens

<400> 3150
 Xaa Ser Pro Ala Ser Arg Pro Glu Ala Gly Pro Glu Ala Ser Pro Ala
 1 5 10 15
 Ala Ala Thr Glu Ala Ser Ala Gly Pro Glu Arg Asp Ala Arg Pro Gly
 20 25 30
 Ala Pro Ala Ala Gly Thr Met Gly Ala Ala His Ser Ala Ser Glu Glu
 35 40 45
 Val Arg Glu Leu Glu Gly Lys Thr Gly Phe Ser Ser Asp Gln Ile Glu
 50 55 60
 Gln Leu His Arg Arg Phe Lys Gln Leu Ser Gly Asp Gln Pro Thr Ile
 65 70 75 80
 Arg Lys Glu Asn Phe Asn Asn Val Pro Asp Leu Glu Leu Asn Pro Ile
 85 90 95
 Arg Ser Lys Ile Val Arg Ala Phe Phe Asp Asn Arg Asn Leu Arg Lys
 100 105 110
 Gly Pro Ser Gly Leu Ala Asp Glu Ile Asn Phe Glu Asp Phe Leu Thr
 115 120 125
 Ile Met Ser Tyr Phe Arg Pro Ile Asp Thr Thr Met Asp Glu Glu Gln
 130 135 140
 Val Glu Leu Ser Arg Lys Glu Lys Leu Arg Phe Leu Phe His Met Tyr
 145 150 155 160
 Asp Ser Asp Ser Asp Gly Arg Ile Thr Leu Glu Glu Tyr Arg Asn Val
 165 170 175
 Lys Trp Ser Arg Ser Cys Cys Arg Glu Thr Leu Thr Ser Arg Arg Ser
 180 185 190
 Pro Leu Ala Pro Ser Pro Thr Gly Pro
 195 200

<210> 3151
 <211> 2079
 <212> DNA
 <213> Homo sapiens

<400> 3151
 gaggggacgt cgtcgtagag ggccggagcg ggccggcgccg gacggaccgg gtcctccgcg
 60
 aggaaggagc cgtggctcag gtcggccctt ccccaacacc accccggggc tccgccctt
 120

cctgggcctc tccgtggagc agggaccga accggtgccc atccagtcgc gtgccatctg
180
aagccccctt cccagaaaat gagccacaga gcaagctgac cccagcgaca cagcccccca
240
gcctactat atttccgttc ctatcaaaaa atggatgact cggagacagg tttaaatctg
300
aaagtcgtcc tggctcagttt caagcagtggt ctccatgaga aggaagagggt cttgctggac
360
ccctacattg ccagctggaa gggcctgggt aggtttctga acagcctggg caccatcttc
420
tcattcatct ccaaggacgt ggtctccaag ctgcggatca tggagcgccct cagggcgggc
480
ccgcagagcg agcactaccg cagcctgcag gccatgggtg cccacgagct gagcaaccg
540
ctggtggacc tggaggggccg ctcccaccac ccggagtctg gctgcgggac ggtgctgcgc
600
ctgaccgcg cccctgcactg gctgcagctg ttctggagg gcctgcgtac cagccccgag
660
gacgcaagca cctccgactg ctgcgcccgc tcctacaacg cctcgtctgc cgcctaccac
720
ccctgggtcg tgcgcgtgc cgtcaccgtg gccttctgca cgtgcccac acgcgaggtc
780
ttcctggagg ccatgaacgt ggggcccccg gagcggccg tgcagatgct aggcagggcc
840
ctccccttca tccagcgtgt ctacaacgtc tcccagaagc tctacgcga gcactccctg
900
ctggacctgc cctagaggcg ggaagccagg gccgcaccgg ctctcctgct gcagatctgg
960
gctgcggtgg ccagggccgt gagtcccgtg gcagagcctt ttgggcgctg cgggaacagg
1020
agatcctctg tgcctcctgt gagctgagct ggtaggaac cacagactgt gacagagaag
1080
gtggcgacca gcccagaaga gggccacctc ctccgtccgg aacaagacgc ctacccacg
1140
gtcctccctc ggctattac acgcgtgcgc agccaggcct cgcagggtg cgtgacagag
1200
cagagcaggc aggggtgggg gcggggcccg caagagcccg aaaggtcgcc accccctagc
1260
ctgtgggggt catctcgaa ccagggtgaa gtcacagtc cgggggtgtg gaggctccat
1320
cctttctctt ttctgccagc cgtatgtgtc tcatctcagg ccctgtcctg ggaaccctgt
1380
tctgccagg tgggcagcct tgagccagg ggactcagtg cctctcatgc cctgtctggc
1440
agaaaccctc aacagcagtc tgggcactgt ggggctctcc cgcctctcc tgccttggtt
1500
gccctcagc gtgccaggca gactgggggc aggcagccg gaagctgaga ccaaggctcc
1560
tcacagaagg gcccaggaag tccccgccct tgggacagcc tcctccgtag cccctgcacg
1620
gcaaccagtc cccgagggac gcagcaggcc gcctcccga cgggcctgtg gtctgcacag
1680
cccagcccag cccaaggccc ccaggagctg ggaactctgt acaccagtg aaatgctgtg
1740

tccctctctcc ccogtgcccc ttgatgcccc ctccccacag tgctcaggag acccgtgggg
 1800
 caccggaacag gaggggtctgg accctgtggc ccagccaaag gctaccagac agccacaacc
 1860
 agccccagcca ccatccagtg cctggggcct ggccactggc tcttcacagt ggaccccgagc
 1920
 accctgggggt ggcagaggga cggcccccac ggcccagcag acatgcgagc ttccagagtg
 1980
 caatctatgt gatgtcttcc aacgttaata aatcacacag cctcccagga gggagacgct
 2040
 ggggtgcaaa aaaaaagcaa aaaaaaaaaa aaaaaaaat
 2079

<210> 3152
 <211> 214
 <212> PRT
 <213> Homo sapiens

<400> 3152
 Met Asp Asp Ser Glu Thr Gly Phe Asn Leu Lys Val Val Leu Val Ser
 1 5 10 15
 Phe Lys Gln Cys Leu Asp Glu Lys Glu Glu Val Leu Leu Asp Pro Tyr
 20 25 30
 Ile Ala Ser Trp Lys Gly Leu Val Arg Phe Leu Asn Ser Leu Gly Thr
 35 40 45
 Ile Phe Ser Phe Ile Ser Lys Asp Val Val Ser Lys Leu Arg Ile Met
 50 55 60
 Glu Arg Leu Arg Gly Gly Pro Gln Ser Glu His Tyr Arg Ser Leu Gln
 65 70 75 80
 Ala Met Val Ala His Glu Leu Ser Asn Arg Leu Val Asp Leu Glu Gly
 85 90 95
 Arg Ser His His Pro Glu Ser Gly Cys Arg Thr Val Leu Arg Leu His
 100 105 110
 Arg Ala Leu His Trp Leu Gln Leu Phe Leu Glu Gly Leu Arg Thr Ser
 115 120 125
 Pro Glu Asp Ala Arg Thr Ser Ala Leu Cys Ala Asp Ser Tyr Asn Ala
 130 135 140
 Ser Leu Ala Ala Tyr His Pro Trp Val Val Arg Arg Ala Val Thr Val
 145 150 155 160
 Ala Phe Cys Thr Leu Pro Thr Arg Glu Val Phe Leu Glu Ala Met Asn
 165 170 175
 Val Gly Pro Pro Glu Gln Ala Val Gln Met Leu Gly Glu Ala Leu Pro
 180 185 190
 Phe Ile Gln Arg Val Tyr Asn Val Ser Gln Lys Leu Tyr Ala Glu His
 195 200 205
 Ser Leu Leu Asp Leu Pro
 210

<210> 3153
 <211> 1498
 <212> DNA
 <213> Homo sapiens

<400> 3153

nttttttttt tttttttttt tttttttttt tttttttttt ttttttctact aaaaataatt
60
taattagaaa cggagctttg gcaagggagg cagaagcggc tccttttttc ccctttggcg
120
ccactcagc aaccaacaag gaggaagacc ccgcagtg cggccagtg ccggccatc
180
gccaccagg agcgcctccg gcgcggtcca cgtggcagag gtcgcggcct cgcgcgcgg
240
ggaggagccg cagccacag tggcaggtcc caggcgtca ctccgagctc tcgccttcg
300
ggcgcgtg cgcgcgtggg gggaggaggg gtctccggcg cgcgcgttg acccggcgg
360
agggctgcag cagcctccg ttcagcacag cagccactgt gtcctggctg tcgcctgtg
420
gccccagta gatgctctcc ccgcgtcgga agttttctgt cagccgtgtg cagagcgtg
480
ccagggtgag cagcaccagc aggaaggtca gggccatggc agcccaggcg gcctcttcag
540
tgctgggggt ggggccccgg gctgcccgtg gagcgtgct ggcgcagggg ccggggaagc
600
ctgacttgaa cagacacagc cccctgggct gccttgcccg ttgggcacct gagcctctgt
660
cctggagctg gcattgcctc caggcgcctc cggcagcagg gagacagtgg gcacagatgg
720
ggcattactc tccctaccag ggattccgc catggactgc ttggccttca agctccctgg
780
ggaagcagag ggaaacctca gggctgagcg agtgggctgg ggaccaaggc cagcccgag
840
cctccgcctc ttggcaccac tagaagaggc ctgcctggcg ccttgagatg tcacctctgt
900
gccagggggc cgccagctcc gcaaaagcaa aggccaaaac ccggggcctg cacacacct
960
cttcggggcag agctccctc taccgggagt tggctcgag ggagcaggcc ctgaaaggct
1020
ttcacagtag atccatgcct tcttcttct ctgcttctc ctccgcctcc tcatcagcca
1080
gtgggagcag caggctggct ctaccaggc catctccag gccagccccc atgcagtcag
1140
caccaggggc cgatcctg ctaggctgaa gtcagggggt aggggaagggt tagccataca
1200
agcataggcc agggaggcaa gctggagctt cagccaggga tgggcacagg ggtgttagag
1260
gaagggtgaca tctcagcct gccctgggct cactcgtgtg taggtcactc ttggtgacac
1320
ctgcggaggc agagggcaca ggctctcggg acaatgggct ccgcctcct ccgcgggtcc
1380
agccatcacc tgtgggtcca aagcgaagag ttggggcgct ggacgcggcg aggccctgcc
1440
ctctctctcc ccaggccag ccgcagcagc gaagaactcc gcgtccccct cggcgcgc
1498

<210> 3154

<211> 65

<212> PRT

<213> Homo sapiens

<400> 3154

```

Thr Asp Thr Ala Pro Trp Ala Ala Leu Pro Val Gly His Leu Ser Leu
 1             5             10             15
Cys Pro Gly Ala Gly Ile Ala Ser Arg Arg Pro Arg Gln Gln Gly Asp
          20             25             30
Ser Gly His Arg Trp Gly Ile Thr Leu Pro Thr Arg Asp Ser Arg His
          35             40             45
Gly Leu His Gly Leu Gln Ala Pro Trp Gly Ser Arg Gly Lys Pro Gln
          50             55             60
Gly
65

```

<210> 3155

<211> 551

<212> DNA

<213> Homo sapiens

<400> 3155

```

caattggatg taattatggt aaaaccttat aaactctgta acaatcaaga agaaaaacgat
60
gcagtgtctt ctgctaagaa accaaagcta gccctggaag attcggaaaa cactgcctct
120
actaactgtg actcttcttc agaaggactg gaaaaggaca cagcaacaca gagaagtgc
180
cagacttgcc tagaaccatc atgttcatgt tcttctgaaa atcaggaatg ccagactgct
240
gccagccctg gggaaattct ggaaattttg aagaaagga aggcatttgt ttagatatt
300
gacttggatt ttttttcagt caagaatccc ttcaaaaaaa tgttcactca ggaagagtac
360
aaaatcttac aagagctgta ccaatttaag aaacctggca ccaacctaac agaggaagat
420
ttggtagata ttgttgatgc tcgaattcat caattagagg atttagaagc cacttgcgt
480
gatttgtgtg atggtgatga tgaagaaacg gtacagggat gggcttcaaa cccttgaagt
540
gaatcactag t
551

```

<210> 3156

<211> 178

<212> PRT

<213> Homo sapiens

<400> 3156

```

Met Val Lys Pro Tyr Lys Leu Cys Asn Asn Gln Glu Glu Asn Asp Ala
 1             5             10             15
Val Ser Ser Ala Lys Lys Pro Lys Leu Ala Leu Glu Asp Ser Glu Asn
          20             25             30
Thr Ala Ser Thr Asn Cys Asp Ser Ser Ser Glu Gly Leu Glu Lys Asp
          35             40             45
Thr Ala Thr Gln Arg Ser Ser Gln Thr Cys Leu Glu Pro Ser Cys Ser

```

50		55		60
Cys Ser Ser Glu Asn Gln Glu Cys Gln Thr Ala Ala Ser Pro Gly Glu				
65		70		75
Ile Leu Glu Ile Leu Lys Lys Gly Lys Ala Phe Val Leu Asp Ile Asp				80
	85		90	95
Leu Asp Phe Phe Ser Val Lys Asn Pro Phe Lys Lys Met Phe Thr Gln				
	100		105	110
Glu Glu Tyr Lys Ile Leu Gln Glu Leu Tyr Gln Phe Lys Lys Pro Gly				
	115	120	125	
Thr Asn Leu Thr Glu Glu Asp Leu Val Asp Ile Val Asp Thr Arg Ile				
	130	135	140	
His Gln Leu Glu Asp Leu Glu Ala Thr Phe Ala Asp Leu Cys Asp Gly				
145		150	155	160
Asp Asp Glu Glu Thr Val Gln Gly Trp Ala Ser Asn Pro Gly Met Glu				
	165	170	175	
Ser Leu				

<210> 3157

<211> 903

<212> DNA

<213> Homo sapiens

<400> 3157

```

nntgaagact agaggaggtta ggtccttgga ggacctagtc agtaggtatt tacaaggcag
60
gcccttgga tctacagtg ggtggggcac ccacaaacc caggttcggt ccagccttac
120
tctctgtag gacttctgat ggtgggggca cctcccagg tcacagtcca ggtgcagggc
180
caggaggtcc tatcagagaa gatggagccc tccagtttcc agccctacc tgaaactgag
240
cctccaactc cagagcctgg gcccaagaca cctcctagga ctatgcagga atcaccactg
300
ggcctgcagg tgaaagagga gtcagaggtt acagaggact cagatttcct ggagtctggg
360
cctctagctg ccacccagga gtctgtacct accctctctg ctgaggaggc ccagtgacca
420
ctgtgatttc agagatgtgg gaccgtgctg gaccagatct tccccacag caagactggg
480
cctgagggtc cctcatggag ggagcaccce agggccctgt ggcatgagga agctgggggc
540
atcttctccc cagggttcgc gctgcagcta ggcagcatct ccgcaggtcc aggtagtgtg
600
agccctcacc tccacgtccc ctgggacctc ggcatggctg gcctttcttg ccagatccaa
660
tcacctccc gcgaagggtg ctttgcgcat gcgcttctgc tcccagcga tctgaggagt
720
gaacaggacc ccacggacga ggaacctctg cggggtgtgg gccctgtctt ggtcaccacc
780
cgctggcgct cccccagggt cggagccgg ggccgcccc gcactggggg cggggtggtt
840
agggggcgcc gttgcgatgt atgtggcaag gtgttcagcc aacgcagcaa cctgctgagg
900

```

cac
903

<210> 3158
<211> 92
<212> PRT
<213> Homo sapiens

<400> 3158
Met Val Gly Ala Pro Pro Gln Val Thr Val Gln Val Gln Gly Gln Glu
1 5 10 15
Val Leu Ser Glu Lys Met Glu Pro Ser Ser Phe Gln Pro Leu Pro Glu
20 25 30
Thr Glu Pro Pro Thr Pro Glu Pro Gly Pro Lys Thr Pro Pro Arg Thr
35 40 45
Met Gln Glu Ser Pro Leu Gly Leu Gln Val Lys Glu Glu Ser Glu Val
50 55 60
Thr Glu Asp Ser Asp Phe Leu Glu Ser Gly Pro Leu Ala Ala Thr Gln
65 70 75 80
Glu Ser Val Pro Thr Leu Leu Pro Glu Glu Ala Gln
85 90

<210> 3159
<211> 2408
<212> DNA
<213> Homo sapiens

<400> 3159
nnccgcgtact ggctgtacgg agcaggagca agaggctcgcc gccagcctcc gccgccgagc
60
ctcgttcgtg tccccgcccc tcgctcctgc agctactgct cagaaacgct gggcgcccca
120
ccctggcaga ctaacgaagc agctcccttc ccaccccaac tgcagggtcta attttggagc
180
ctttgcctgc cattctcttc aggttgaggg agccgcagag gcggaggctc gcgtattcct
240
gcagtcagca ccacgtcgc ccccggaagc tcggtgctca ggccttcgc gaggcggtg
300
ctccgtctgc ggtcccttgt gaaggctctg ggcggctgca gaggccggcc gtccggtttg
360
ggtccacctc ccaggaagc ttacactagg agagccaaa ggagtggagc agcctgtctt
420
ggagattttc ctggggaaat cctgaggtca ttcatatga agtgaccgc gcgggagtg
480
ctcagagtaa ccacagtgc gtctatggct agagcaatc cagccatggt ggttcccaat
540
gccactttat tggagaaact ttggaaaaa tacatggatg aggatggtga gtggtggata
600
gccaaacaac gaggggaaa ggcacatcaca gacaatgaca tgcagagtat tttggacctt
660
cataataaat tacgaagtca ggtgtatcca acagcctcta atatggagta tatgacatgg
720
gatgtagagc tggaaagatc tgcagaatcc tgggctgaaa gttgcttggt ggaacatgga
780

cctgcaagct tgcctccatc aattggacag aatttgggag cacactgggg aagatatagg
840
ccccgcagct ttcattgtaca atcgtggtat gatgaagtga aagacttttag ctaccocatat
900
gaacatgaat gcaaccata ttgtccattc aggtgttctg gccctgtatg tacacattat
960
acacaggctg tgtgggcaac tagtaacaga atcggtttgt ccattaattt gtgtcataac
1020
atgaacatct gggggcagat atggcccaaa gctgtctacc tgggtgtgcaa ttactcccca
1080
aagggaaact ggtggggcca tgccccttac aaacatgggg ggccctgttc tgcctgacca
1140
cctagttttg gagggggctg tagagaaaaa ctgtgctaca aagaagggtc agacaggat
1200
tatccccctc gagaagagga aacaaatgaa atagaacgac agcagtcaca agtccatgac
1260
acccatgtcc ggcacaagatc agatgatagt agcagaaatg aagtcataag cgcacagcaa
1320
atgtcccaaa ttgtttcttg tgaagtaaga ttaagagatc agtgcaaaagg aacaacctgc
1380
aatagggtacg aatgtcctgc tggtgttttg gatagtaaaag ctaaagtatt tggcagtgt
1440
cattatgaaa tgcaatccag catctgtaga gctgcaatc attatggtat aatagacaat
1500
gatgtgtggt gggtagatat cactagacaa ggaagaaagc attatttcat caagtccaat
1560
agaaatggta ttcaaacat tgccaatat cagtctgcta attccttcac agtctctaaa
1620
gtaacagttc aggtgtgtac ttgtgaaaca actgtggaca gctctgtcca ttctataagc
1680
ctgcttcaca ttgccaaga gtatactgtc ctctgaactg tatgcaagca aatccacatt
1740
atgctcgtgt aattgggact cgagtattat ctgactgtgc cagtatctgc agagcagcag
1800
tacatgctgg gagtgttctg aaatcacggt gggtatgttg atgtaatgcc tgtggaccaa
1860
agaaagacct acattgtctc ttttcagaat ggaatcttct cagaaagttt acagaatcct
1920
ccaggaggaa aggcattcag agtgtttgct gttgtgtgaa actgaatact tggaagagga
1980
ccataaagac tattccaat gcaatatctc tgaattttgt ataaaactgt aacattactg
2040
tacagagtac atcaactatt ttcagcccaa aaagggtcca aatgcataata aatcttgata
2100
aacaaagtct ataaaaataa acatgggaca ttgacttttg gaaaagtaat gaaaataata
2160
tggttttaga aatcctgtgt taaatattgc tatattttct tagcagttat ttctacagtt
2220
aattacatag tcatgattgt tctacgttcc atattattata tgggtgcttg tatatgccac
2280
taataaaaatg aatctaaaca ttgaatgtga atggccctca gaaaatcatc tagtgcaatt
2340
aaaaataatc gactctaaaa ctgaaagaaa ccttatcaca ttttcccag ttcaatgcta
2400

tgccatta
2408

<210> 3160
<211> 431
<212> PRT
<213> Homo sapiens

<400> 3160
Met Lys Cys Thr Ala Arg Glu Trp Leu Arg Val Thr Thr Val Leu Phe
1 5 10 15
Met Ala Arg Ala Ile Pro Ala Met Val Val Pro Asn Ala Thr Leu Leu
20 25 30
Glu Lys Leu Leu Glu Lys Tyr Met Asp Glu Asp Gly Glu Trp Trp Ile
35 40 45
Ala Lys Gln Arg Gly Lys Arg Ala Ile Thr Asp Asn Asp Met Gln Ser
50 55 60
Ile Leu Asp Leu His Asn Lys Leu Arg Ser Gln Val Tyr Pro Thr Ala
65 70 75 80
Ser Asn Met Glu Tyr Met Thr Trp Asp Val Glu Leu Glu Arg Ser Ala
85 90 95
Glu Ser Trp Ala Glu Ser Cys Leu Trp Glu His Gly Pro Ala Ser Leu
100 105 110
Leu Pro Ser Ile Gly Gln Asn Leu Gly Ala His Trp Gly Arg Tyr Arg
115 120 125
Pro Pro Thr Phe His Val Gln Ser Trp Tyr Asp Glu Val Lys Asp Phe
130 135 140
Ser Tyr Pro Tyr Glu His Glu Cys Asn Pro Tyr Cys Pro Phe Arg Cys
145 150 155 160
Ser Gly Pro Val Cys Thr His Tyr Thr Gln Val Val Trp Ala Thr Ser
165 170 175
Asn Arg Ile Gly Cys Ala Ile Asn Leu Cys His Asn Met Asn Ile Trp
180 185 190
Gly Gln Ile Trp Pro Lys Ala Val Tyr Leu Val Cys Asn Tyr Ser Pro
195 200 205
Lys Gly Asn Trp Trp Gly His Ala Pro Tyr Lys His Gly Arg Pro Cys
210 215 220
Ser Ala Cys Pro Pro Ser Phe Gly Gly Cys Arg Glu Asn Leu Cys
225 230 235 240
Tyr Lys Glu Gly Ser Asp Arg Tyr Tyr Pro Pro Arg Glu Glu Glu Thr
245 250 255
Asn Glu Ile Glu Arg Gln Gln Ser Gln Val His Asp Thr His Val Arg
260 265 270
Thr Arg Ser Asp Asp Ser Ser Arg Asn Glu Val Ile Ser Ala Gln Gln
275 280 285
Met Ser Gln Ile Val Ser Cys Glu Val Arg Leu Arg Asp Gln Cys Lys
290 295 300
Gly Thr Thr Cys Asn Arg Tyr Glu Cys Pro Ala Gly Cys Leu Asp Ser
305 310 315 320
Lys Ala Lys Val Ile Gly Ser Val His Tyr Glu Met Gln Ser Ser Ile
325 330 335
Cys Arg Ala Ala Ile His Tyr Gly Ile Ile Asp Asn Asp Gly Gly Trp
340 345 350
Val Asp Ile Thr Arg Gln Gln Gly Arg Lys His Tyr Phe Ile Lys Ser Asn

```

          355              360              365
Arg Asn Gly Ile Gln Thr Ile Gly Lys Tyr Gln Ser Ala Asn Ser Phe
    370              375              380
Thr Val Ser Lys Val Thr Val Gln Ala Val Thr Cys Glu Thr Thr Val
    385              390              395              400
Asp Ser Ser Val His Phe Ile Ser Leu Leu His Ile Ala Gln Glu Tyr
          405              410              415
Thr Val Leu Val Thr Val Cys Lys Gln Ile His Ile Met Leu Val
          420              425              430

<210> 3161
<211> 1197
<212> DNA
<213> Homo sapiens

<400> 3161
nnaacaccag caaaattttt gaaaaaggtt gcaaaggagt ttggcttcca aaataatggc
60
ttctcggtta acatcaatag aaacaagacc ggagagataa cagcctcctc caacaaatcc
120
ctcaaattgc taaaaatcaa gcatggcgat ttgttgttcc tgtttccctc gagccttgct
180
gggccctcat ctgaaatgga gacgtcagtt ccaccgggct tcaaagtctt tggcgctccc
240
aacgtggtgg aggatgagat tgatcagtac ctacagcaaac aggacgggaa gatttacaga
300
agccgagacc cacagctatg cgcgcacgyc ctttgggga aatgcgtgca ctgcgtccct
360
ctagagccat tcgatgagga ctatctaaac catctcgagc ctcccgtaga gcacatgtcc
420
ttccagcctt acatccggaa gctgactgga ggggctgaca aggggaagtt tgttgccctg
480
gagaacatca gctgcaagat taagtcaggg tgcgaggggc acctcccgtg gccgaatggc
540
atctgtacta agtgccagcc gagcgccatc acgctgaaca gacagaagta caggcatgtg
600
gacaatatca tgtttgagaa tcacaccgtc gctgaccgct ttcttgactt ctggagaaa
660
acaggggaacc agcatttttg gtacttatac ggacgggtaca cggagacaaa agacattccc
720
cttggcatca gggctgaagt ggctgcgatt tatgagccac ctacagattg tacacagaac
780
agcttggagc ttcttgagga tccaaaagct gaagtggtcg atgaaattgc tgccaaactt
840
ggcctgcgga aggttggctg gatatttaca gacctcgtct cagaagatgc ccgaaagggt
900
accgtccgct acagtcgaaa taaggacacc tatttctaa gttcagaaga gtgcatcact
960
gcaggagact tccagaacaa gcatcccaac atgtgccggc tctctccaga cggacatttt
1020
ggatccaagt ttgttactgc agtggtctaca ggtggtcctg acaaccaagt ccactttgaa
1080
gggtaccagg tgtccaatca gtgtatggca ctggtccgtg atgagtgttt gctgccatgc
1140

```



```

          355              360              365
Met Ala Leu Val Arg Asp Glu Cys Leu Leu Pro Cys Lys Asp Ala Pro
          370              375              380
Val Cys
385

<210> 3163
<211> 1075
<212> DNA
<213> Homo sapiens

<400> 3163
ngacctctgtg aaaaagccaca ggtggactgc ttctggggac atcaccttct tcttcggggg
60
tgccagtcac cggaacgtca gaaacctgaa gtgtcatctg gggccatgga cggagagggg
120
tggggggctac cagtggagcc actgactcct ggacatcagg atgctctgcc atggcaaagg
180
tggtatcatc catgtttctt gtcttcagtt cctcctcggc aggcctgcgc ctcaccggct
240
tcactgcagct cttcagctgc cntggcctca gcctccacgg gacctgggca ctcgggctgt
300
ggctccagct gcggcagctg ctgctgctgg ggcagccctt cggcatcagt ggggtgtggg
360
gocgggtgcga tccggagcag gactgtgtag ttgcccgcgt ggttgttggc ccagaaagt
420
ccctcanngg ggtctcatag cgcaccancc aagtcgaggg cgcgcccatc gccccgcccc
480
tcagcaaagg gcagctggaa ggcaaagcgg tcggtgcggc gcgcgctgct gggcgaggag
540
gcggatgctt ggccgggacc caggccgagc cccggatcca ggatgggata tctctctcct
600
gttctctccg ctctctccca cggcgggctg cgcgggacgt agcgcgctgg gtggtcgcaa
660
aaggaaagccc agcgcgtcgt tgaggccgca cgtgcaccgc cttctcgaa gaggcgttca
720
gcacgcgtac caaccgcgc agcaccgcgc ggcggccccc aggcacccac accccggcac
780
ccccggggac cgtccggga ggcggcagca gcgcctccag ctccaccatg acgcgcccc
840
agcgcctccg acggcccggc gcggggcgga gcgaaaaatgt ggggaccagg taaaacncc
900
ccgcagcggg ggaacgggga cagcgggtgag ggctcggggc aagcctctct tctctctcc
960
cttctatccc cactctcgcc atcgctcgcc tcgtcgcccc cgcgcgcgcc gccaatatgg
1020
cgcgtacggc cctgtggag ccccgcctgc ggcattccgc gcccccctcg ccggc
1075

<210> 3164
<211> 94
<212> PRT
<213> Homo sapiens

```


<400> 3164

```

Met Asp Gly Glu Gly Trp Gly Leu Pro Val Asp Pro Leu Thr Pro Gly
 1             5             10             15
His Gln Asp Ala Leu Pro Trp Gln Arg Cys Tyr His Pro Cys Ser Ser
             20             25             30
Ser Ser Val Pro Pro Arg Gln Ala Cys Ala Ser Pro Ala Ser Cys Ser
 35             40             45
Ser Ser Ala Ala Xaa Ala Ser Ala Ser Thr Gly Pro Trp His Ser Gly
 50             55             60
Cys Gly Ser Ser Cys Gly Ser Cys Cys Cys Trp Gly Ser Pro Ser Ala
 65             70             75             80
Ser Val Gly Val Gly Ala Gly Ala Ile Arg Ser Arg Thr Val
             85             90

```

<210> 3165

<211> 2413

<212> DNA

<213> Homo sapiens

<400> 3165

```

gaaggctgtg cggagcggcg cggcacagag cctgttgttg agctcagtat gtcgtgggaa
 60
tcgggggccc ggccagggtct aggttcccag gggatggatc tcgtgtggag tgcgtgggtac
120
ggaaagtgcg ttaaagggaa agggtcgttg ccactctcgg cccacggcat cgtggctgcc
180
tggctcagca gggccgagtg ggaccaggtg acggtttatc tgttctgtga cgaccataag
240
ttgcagcggg acgcgcttaa ccgcatcacg gtgtggagga gcaggtcagg caacgaactc
300
cctctggcag tggcttctac tgctgaacctg atacgctgta agctcttgga tgtaactggt
360
ggcttgggca ctgatgaact tagactgctc tatggcatgg cattgggtcag gtttgtgaat
420
cttatctcag agaggaagac aaagtattgc aaggtccccc tcaagtgtct ggctcaagag
480
gtaaatattc cggattggat tgttgacctt cgccatgagt tgaccacaa gaaaatgccc
540
catataaatg actgccgcag aggtgcttac ttgtcctggt attggctcca gaagacctat
600
tgggtgccgc aactggagaa cagcctgaga gagacctggg agttggagga gttcagggaa
660
gggatagagg aagaggatca agagggaagt aagaacattg ttgttgatga catcacagaa
720
cagaaaccag agcctcagga tgatgggaaa agtacggagt cagatgtaaa ggccgatgga
780
gacagcaaag gcagcgaaga ggtggattct cattgcaaaa aggccttgag tcataaagag
840
ctatatgaaa gagcccgaga actgctggta tcatacgaag aggagcagtt tacgggtgctg
900
gagaaattta ggtatttacc taaggccatt aaggcgtgga ataaccgctc cccacgtgta
960
gaatgtgtcc tggcagagct caagggcggt acatgcgaga acagggaggc tgtgtcggat
1020

```

gcttttcttg atgatggctt ccttgcccc acatttgaac agttggcagc tttgcagata
 1080
 gaatatgaag aaaacgtgga cttgaatgac gtccctgggtc caaagccgtt ctctcagttc
 1140
 tggcagcccc tgctcagggg cctgcactcc cagaacttca cgcaggccct attggagagg
 1200
 atgctctctg aactgccagc ctgggggatc agcgggatcc ggccctaccta catcctcaga
 1260
 tggaccgttg aactgatcgt ggccaacacc aagactggac ggaatgctcg cogattttct
 1320
 gcaggccagt gggaagcaag aaggggctgg aggcctgttca actgctcgcg ctcccttgac
 1380
 tggcccccga tggttgagtc ctgcttgggc tcaccttgct ggccagccc ccaactcctt
 1440
 cggatcatct tcaagccat ggggcagggc ctgccagacg aggagcagga gaagctgctg
 1500
 cgcactctgt ccatttatac ccagagtgga gaaaacagcg ttgtgcagga gggctctgag
 1560
 gccctcccca ttgggaagtc tccatataca ctagacagcg tgtattggag cgtcaagcca
 1620
 gccagctcca gcttcgggtc tgaagcaaa gcccagcaac agggaggagca gggcagtggt
 1680
 aatgatgtca aggaagagga gaaggaggag aaagaggctc tgccagacca ggtagaggag
 1740
 gaggaagaaa atgatgacca agaggaggaa gagaggatg aagatgatga agatgatgaa
 1800
 gaggaagaca gaatggaggg ggggcctttc tctacagggc aagagtcccc cactgccgag
 1860
 aatgctaggg ttctggccca gaaaagagga gctttgcagg gctctgcagc gcaggttagc
 1920
 tcagaagacg tgcgatggga cacatttccc ctaggccgaa tgccaggtca gaccaggac
 1980
 ccagcagagc tcatgctgga gaattatgac accatgtatc ttttggacca gcctgtgcta
 2040
 gagcagcggc tggaaccctc aacatgcaag actgacacct tgggcctgag ctgtggtgtc
 2100
 ggcagtggca actgcagcaa cagcagcagc agcaacttcc agggccttct ctggagccag
 2160
 gggcagctgc atgggctcaa aactggcctg cagctcttct gatggccatc cctgggtgcaa
 2220
 gtgttcatcc agccgtgccca gggcaacagc caccctcccta gtacaactga tgctccctga
 2280
 gacaacctgg gagacagcct ggatcagcca catcaactca gttgtccacc acaggggaat
 2340
 tttgaatgtc ttttgttttt gttttgtttt gaaaaataat aaacaggcaa ctgtaaaaaa
 2400
 aaaaaaaaaa aaa
 2413

<210> 3166

<211> 717

<212> PRT

<213> Homo sapiens

<400> 3166

```

Met Ser Trp Glu Ser Gly Ala Gly Pro Gly Leu Gly Ser Gln Gly Met
1      5      10      15
Asp Leu Val Trp Ser Ala Trp Tyr Gly Lys Cys Val Lys Gly Lys Gly
20      25      30
Ser Leu Pro Leu Ser Ala His Gly Ile Val Val Ala Trp Leu Ser Arg
35      40      45
Ala Glu Trp Asp Gln Val Thr Val Tyr Leu Phe Cys Asp Asp His Lys
50      55      60
Leu Gln Arg Tyr Ala Leu Asn Arg Ile Thr Val Trp Arg Ser Arg Ser
65      70      75      80
Gly Asn Glu Leu Pro Leu Ala Val Ala Ser Thr Ala Asp Leu Ile Arg
85      90      95
Cys Lys Leu Leu Asp Val Thr Gly Gly Leu Gly Thr Asp Glu Leu Arg
100      105      110
Leu Leu Tyr Gly Met Ala Leu Val Arg Phe Val Asn Leu Ile Ser Glu
115      120      125
Arg Lys Thr Lys Phe Ala Lys Val Pro Leu Lys Cys Leu Ala Gln Glu
130      135      140
Val Asn Ile Pro Asp Trp Ile Val Asp Leu Arg His Glu Leu Thr His
145      150      155      160
Lys Lys Met Pro His Ile Asn Asp Cys Arg Arg Gly Cys Tyr Phe Val
165      170      175
Leu Asp Trp Leu Gln Lys Thr Tyr Trp Cys Arg Gln Leu Glu Asn Ser
180      185      190
Leu Arg Glu Thr Trp Glu Leu Glu Glu Phe Arg Glu Gly Ile Glu Glu
195      200      205
Glu Asp Gln Glu Glu Asp Lys Asn Ile Val Val Asp Asp Ile Thr Glu
210      215      220
Gln Lys Pro Glu Pro Gln Asp Asp Gly Lys Ser Thr Glu Ser Asp Val
225      230      235      240
Lys Ala Asp Gly Asp Ser Lys Gly Ser Glu Glu Val Asp Ser His Cys
245      250      255
Lys Lys Ala Leu Ser His Lys Glu Leu Tyr Glu Arg Ala Arg Glu Leu
260      265      270
Leu Val Ser Tyr Glu Glu Glu Gln Phe Thr Val Leu Glu Lys Phe Arg
275      280      285
Tyr Leu Pro Lys Ala Ile Lys Ala Trp Asn Asn Pro Ser Pro Arg Val
290      295      300
Glu Cys Val Leu Ala Glu Leu Lys Gly Val Thr Cys Glu Asn Arg Glu
305      310      315      320
Ala Val Leu Asp Ala Phe Leu Asp Asp Gly Phe Leu Val Pro Thr Phe
325      330      335
Glu Gln Leu Ala Ala Leu Gln Ile Glu Tyr Glu Glu Asn Val Asp Leu
340      345      350
Asn Asp Val Leu Val Pro Lys Pro Phe Ser Gln Phe Trp Gln Pro Leu
355      360      365
Leu Arg Gly Leu His Ser Gln Asn Phe Thr Gln Ala Leu Leu Glu Arg
370      375      380
Met Leu Ser Glu Leu Pro Ala Leu Gly Ile Ser Gly Ile Arg Pro Thr
385      390      395      400
Tyr Ile Leu Arg Trp Thr Val Glu Leu Ile Val Ala Asn Thr Lys Thr
405      410      415
Gly Arg Asn Ala Arg Arg Phe Ser Ala Gly Gln Trp Glu Ala Arg Arg

```

420 425 430
 Gly Trp Arg Leu Phe Asn Cys Ser Ala Ser Leu Asp Trp Pro Arg Met
 435 440 445
 Val Glu Ser Cys Leu Gly Ser Pro Cys Trp Ala Ser Pro Gln Leu Leu
 450 455 460
 Arg Ile Ile Phe Lys Ala Met Gly Gln Gly Leu Pro Asp Glu Glu Gln
 465 470 475 480
 Glu Lys Leu Leu Arg Ile Cys Ser Ile Tyr Thr Gln Ser Gly Glu Asn
 485 490 495
 Ser Leu Val Gln Glu Gly Ser Glu Ala Ser Pro Ile Gly Lys Ser Pro
 500 505 510
 Tyr Thr Leu Asp Ser Leu Tyr Trp Ser Val Lys Pro Ala Ser Ser Ser
 515 520 525
 Phe Gly Ser Glu Ala Lys Ala Gln Gln Glu Glu Gln Gly Ser Val
 530 535 540
 Asn Asp Val Lys Glu Glu Lys Glu Glu Lys Glu Val Leu Pro Asp
 545 550 555 560
 Gln Val Glu Glu Glu Glu Glu Asn Asp Asp Gln Glu Glu Glu Glu Glu
 565 570 575
 Asp Glu Asp Asp Glu Asp Asp Glu Glu Asp Arg Met Glu Val Gly
 580 585 590
 Pro Phe Ser Thr Gly Gln Glu Ser Pro Thr Ala Glu Asn Ala Arg Leu
 595 600 605
 Leu Ala Gln Lys Arg Gly Ala Leu Gln Gly Ser Ala Trp Gln Val Ser
 610 615 620
 Ser Glu Asp Val Arg Trp Asp Thr Phe Pro Leu Gly Arg Met Pro Gly
 625 630 635 640
 Gln Thr Glu Asp Pro Ala Glu Leu Met Leu Glu Asn Tyr Asp Thr Met
 645 650 655
 Tyr Leu Leu Asp Gln Pro Val Leu Glu Gln Arg Leu Glu Pro Ser Thr
 660 665 670
 Cys Lys Thr Asp Thr Leu Gly Leu Ser Cys Gly Val Gly Ser Gly Asn
 675 680 685
 Cys Ser Asn Ser Ser Ser Ser Asn Phe Glu Gly Leu Leu Trp Ser Gln
 690 695 700
 Gly Gln Leu His Gly Leu Lys Thr Gly Leu Gln Leu Phe
 705 710 715

<210> 3167

<211> 2730

<212> DNA

<213> Homo sapiens

<400> 3167

nnggcggcg cctcctcctg gattcattca ctcgtctttt tcattcacga aggtagtgg
 60
 gcttagtgga aagccatgga gagcgtctc cccgcgccc gcttcctgta ctgggtcggc
 120
 gcgggcaccg tggcctacct agccctgcgt atttcgtact cgctcttcac ggccctccgg
 180
 gtctggggag tggggaatga ggcggggggt ggcccggggc tcggagagtg ggcattgtc
 240
 acaggtagta ctgatggaat tggaaaatca tatgcagaag agttagcaaa gcattggaatg
 300

aaggttggtcc ttatcagcag atcaaaaggat aaacttgacc aggtttccag tgaaataaaa
360
gaaaaattca aagtggagac aagaaccatt gctgttgact ttgcatcaga agatatttat
420
gataaaaatta aaacaggctt ggctgggtctt gaaatcgga ctttagtgaa caacgtggga
480
atgtcgtatg agtatcctga atactttttg gatgttccctg acttggacaa tgtgatcaag
540
aaaatgataa atattaatat tctttctgtt tgtaagatga cacaattggt actgcctggc
600
atgggtggaaa gatccaaagg ggctattctg aacatttcat ctggcagtggt catgctccct
660
gtcccactct tgaccatcta ttctgcaacc aagacttttg tagatttctt ctctcagtgc
720
ctccatgagg agtataggag caagggcgctc ttgtgcaga gtgtcctgcc atacttcgta
780
gctacaaaac tggctaaaat ccggaagcca actttggata agccctctcc ggagacgttt
840
gtgaagctcg caattaaaac agtcggcctg caatccgaa ccaatggata cctgatccat
900
gctcttatgg gctcgataat ctcaaacctg ccttcttgga tttatttgaa aatagtcagt
960
aatatgaaca agtctacacg ggctcactat ctgaagaaaa ccaagaagaa ctaagcattg
1020
ataactgcat tgtaacttgg ccagatgctc cagcatatgc acgttctactg caaagacccc
1080
tactgggtttt gaaaatctga ccttgcattt tcaatagtta ttaacatgac taaatattat
1140
cttaattaag aggaaaaatag aagtgtgctt taggggttct tgacatatat tctggatact
1200
atccgaggta attttgaagt ttaatatata tgctcatatc aaatgaatat agaactaata
1260
tgtcgggaa cacctaatag aaaggaatac tattatagca aatcacagaa tgatagactc
1320
aagcataaaa cttggcagtt ttatctgctt caaaatgccca ttgatcatta ttctgtatt
1380
ttctctgaaa ctgattataa aaaccaatgt ccagctactc ttttgttttt gacacttgaa
1440
gaaatggaga tcgatttgat ttgtttataa gcagacacac tgcaatttac aaagatctct
1500
ttacgggtttt ataaaaattat cttccagttt gtacatttat atggaattgt tctttatcaa
1560
gggtagctaa tgacatgaaa ataatttgta aatatggaat tatttctgac acatgaagcc
1620
cactaaacta tgctttctta taatgcatat ttcttctcag tttaaatgta tgtaaatatc
1680
gaagctatat ggtatgattt ataaagataa atgggccaaa gtgtacattg agactggcag
1740
ccatctatgg taccactgaa accctgaccc agaaaagtggt cttgcttgga caccagctg
1800
cctttgtttc tgcattaaac caatattgat cacacatag acacaggcta gtctcataaa
1860
agtaatgact tcatagaaat ggcattataa tttttaagtt gatactctac aggtagctat
1920

tgatataatt agttttaata aaacatgctg caaccatggt atacaacaaa aatacatttc
 1980
 tttggtgatt gaaattaagg cgtattttac aatgacttaa tataagactg acttttatcc
 2040
 tgcttcataa cttgtatgga gaactcacca agaaagaatt caatactgtg aaatatgcag
 2100
 caagaagatt ggtctttacc taggctgtgt ttcctaagct ctgagttttc agcaccagta
 2160
 gatttgtatt aaaagaaaaa aaaatggggc cttagcttct ggcttttaat tttgccagct
 2220
 aaggacataa acaaaaaata aacaacaaaa aacaaatagc catctgctat cagcatcatt
 2280
 atgtaaaaga aaatatattt tagccctcaa aattaggaag aatgtaatct cagaataaag
 2340
 gttgtcattt aagtgaata aatatatagc tttatgaaa acacattggt tgcccttttt
 2400
 tcctctcatt tcattgtaga aatgggtgaca ccacaatgac ctggacagta ttttatctgc
 2460
 tttcacacat tgggttggtta gttggttggt tgggttggtg gtgagttggt tttagtgtag
 2520
 tgggtgtaga tagaggaggg attctcttgc aagtatacaa aatactctct tttcttttta
 2580
 tcccagttag aaaatagttg taggctaagc acagtggctt acacctgtaa actcaatgct
 2640
 ttgggaggct gagacaggag gattgcttga gccggggagt tcaacgccag cccgggcaac
 2700
 gtagcaagct cttgtctcta caaaaaaatt
 2730

<210> 3168

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3168

Met Glu Ser Ala Leu Pro Ala Ala Gly Phe Leu Tyr Trp Val Gly Ala
 1 5 10 15
 Gly Thr Val Ala Tyr Leu Ala Leu Arg Ile Ser Tyr Ser Leu Phe Thr
 20 25 30
 Ala Leu Arg Val Trp Gly Val Gly Asn Glu Ala Gly Val Gly Pro Gly
 35 40 45
 Leu Gly Glu Trp Ala Val Val Thr Gly Ser Thr Asp Gly Ile Gly Lys
 50 55 60
 Ser Tyr Ala Glu Glu Leu Ala Lys His Gly Met Lys Val Val Leu Ile
 65 70 75 80
 Ser Arg Ser Lys Asp Lys Leu Asp Gln Val Ser Ser Glu Ile Lys Glu
 85 90 95
 Lys Phe Lys Val Glu Thr Arg Thr Ile Ala Val Asp Phe Ala Ser Glu
 100 105 110
 Asp Ile Tyr Asp Lys Ile Lys Thr Gly Leu Ala Gly Leu Glu Ile Gly
 115 120 125
 Ile Leu Val Asn Asn Val Gly Met Ser Tyr Glu Tyr Pro Glu Tyr Phe
 130 135 140
 Leu Asp Val Pro Asp Leu Asp Asn Val Ile Lys Lys Met Ile Asn Ile

```

145             150             155             160
Asn Ile Leu Ser Val Cys Lys Met Thr Gln Leu Val Leu Pro Gly Met
165             170             175
Val Glu Arg Ser Lys Gly Ala Ile Leu Asn Ile Ser Ser Gly Ser Gly
180             185             190
Met Leu Pro Val Pro Leu Leu Thr Ile Tyr Ser Ala Thr Lys Thr Phe
195             200             205
Val Asp Phe Phe Ser Gln Cys Leu His Glu Glu Tyr Arg Ser Lys Gly
210             215             220
Val Phe Val Gln Ser Val Leu Pro Tyr Phe Val Ala Thr Lys Leu Ala
225             230             235
Lys Ile Arg Lys Pro Thr Leu Asp Lys Pro Ser Pro Glu Thr Phe Val
240             245             250             255
Lys Ser Ala Ile Lys Thr Val Gly Leu Gln Ser Arg Thr Asn Gly Tyr
260             265             270
Leu Ile His Ala Leu Met Gly Ser Ile Ile Ser Asn Leu Pro Ser Trp
275             280             285
Ile Tyr Leu Lys Ile Val Met Asn Met Asn Lys Ser Thr Arg Ala His
290             295             300
Tyr Leu Lys Lys Thr Lys Lys Asn
305             310

```

<210> 3169

<211> 5945

<212> DNA

<213> Homo sapiens

<400> 3169

```

nncggccgcc gcaagaaagt gtccttcgag gccagcgtgg ccctgctgga ggcctcgctg
60
aggaaacgacg ccgaggaagt acgctacttc ctgaagaata aggtcagccc tgatttgtgc
120
aatgaggacg gactcacagc cctacaccag tgctgcatcg acaactttga ggaatttgtg
180
aagctgctcc tctcccatgg tgccaatgtg aacgccaaagg acaacgagct gtggacacct
240
ctccatgctg cagccacctg cggccacatc aacctgggtga agatcctcgt tcagtatggg
300
gccgacttgc ttgctgtcaa ctcggtatgg aacatgccat atgacctctg cgaggatgaa
360
cccaccttgg atgtcatcga gacctgcatg gcataccagg gcatacccca agagaaaatc
420
aacgagatgc ggggtggctcc tgagcagcag atgattgcgg acatccactg catgatgcga
480
gcggggccagg acctggactg gatagatgcc cagggtgcca cactgctgca catagctgga
540
gccaatggat acctgcgggc agctgagctc ctctgggate atggagtgcg tgtggatgtg
600
aaggactggg atggctggga gccctgcgat gcagctgect tctggggaca gatgcagatg
660
gcagagctat tgggtgtcca tggagctagt ctcaagtcaa ggacatccat ggatgagatg
720
ccaatagacc tgtgagagga ggaagagttc aaggtccttc tgctggagct aaaaacacaag
780

```

catgatgtga tcatgaagtc acagctgagg cacaagtcac ccttgagccg gaggacctcc
840
agcgcaggca gccgtgggaa ggtggtgagg cgagccagcc tgcgggacag gaccaacctg
900
tataggaagg agtatgaggg agaggccatc ctgtggcagc ggagtgcagc tgaggatcag
960
cggacctcca cctacaacgg ggacatcagg gagaccagga cagaccaaga gaataaggac
1020
cctaacccca ggctggagaa gcccgctgta ctctccgaat ttctaccaaa gatcccaaga
1080
ggtgaactgg acatgcctgt tgagaatggc ctccgggctc cggtcagtgc ctaccagtat
1140
gcgctggcca acggggatgt ctggaaggtg catgaggtgc ctgactacag catggcctat
1200
ggcaaccttg gcgtggccga cgcacccccc cctgggagca gctacaagga acagagccct
1260
cagagccttc tggagctgaa gcggcagcgg gctgcagcca agctgctcag ccaccccttc
1320
cttagcacac acctgggagc cagcatggcc aggcggggcg agagtagcag tgaaggcaag
1380
gcnccttga tcggaggcag aacttcaccg tacagcagca atgggacctc ggtatattac
1440
acgggtacca gcggagatcc cccactctta aagttcaagg ccccataga ggagatggag
1500
gagaagggtg atggctgttg ccgtatctcc tagtctccgt gtgatggagg agggagatgc
1560
ctggggaggg gctcctggaa tccaggccag cccaacaacc ctggctgggg aggtgtcagg
1620
gcagctgggg agaggtgggc tctgcttttc agaggaaact agaccccagc cctcagctgg
1680
ctgcccatag catcccattg cccacgtccc gtggttctgc ttctgtctgc atcgtctgcc
1740
atctgacaca aggcctgtcg tggcctcctg gttcactctg ctgtctgac ttggggagggt
1800
gggcttgaga tcccagctct attcttggtg taaaggcttc tccgatcag tacatgcatg
1860
tcacattaac acacacacac acacacatat acacacacac acaagctcga tcagtgtgtg
1920
taggaatgac atacctgggc tcagggggag caagggggct tagaatttgt ggggtatttc
1980
caaaaggatg gaagttaaga ctcagagctc cattaccact gccaatgtgg ttttagcagg
2040
ggaggggacc tgctaagctg agaccatag tctgtctcag agttatccca aagctcagac
2100
caccagccac acctgacagg ggtgagaagt cctcgtctg ttcagagggg gccaggaatc
2160
tacatgggta gatgagatag acacagacct gctccccgca gccttggtga gagecacact
2220
tctgcccatt ccaggagcca gctgtgtgac catccagggg tggaggggga aaacaggga
2280
atttcgttcc tggaatcaac caaatcatgt ttctctcttg gatggaagtg tcaaaaggcag
2340
aagggtgagg gagggggaca aggtcagtat ttaccaaagt gtatctgatt ttaaaaaattc
2400

ctttagtctg taaaactcct agaggaggagg aggtaactga attcacttct ttttgtggat
2460
cgtatcaagg tcaactgggtt ttactggctg gtgctgggaa aatgaagcta agtgaggagc
2520
ttccattgga atgctttttcc agggagagag gccagttaat ttaaaaaaaaa cagtgcgttag
2580
taaacagcga cagagccag caccctgggg tctttgtgaa tatccagact ttttcagccc
2640
agcccatctc agccaaccct ccttagactg agctgtcaga gcaagcaatt aggggccagc
2700
ctgcctccac ctcccacccc ctccacccct catcagtcac gtgtgcagag tcagtgcctg
2760
ggatccggg cccagctttt gcctttttgg ggatgcttgg tgagacagat ttgccagtca
2820
gcccttttga gttcccgct caccagggg ctcccagcct gcacttcag gagtggtgat
2880
gccccaagtc tgcgaatcca ggggtcacgt ggtcaatate ccttctgca ttccaggagag
2940
ccatggtagg gctggagtgt ggtcttgcct agccctgcag ttctatagtc ccagccttcc
3000
tggtgctggg gagggaggac tgtgaatggc tgttctcccc tcaactgtga gtctcccagg
3060
accccttttg gagatgccc tggcatgggc actgccaca ggctcagcca gaacctcttg
3120
gtgtaccoga taagctgcag gttatccctt gctctgtgcy ctttttattt gtctttaaac
3180
taacctctta gagctctgaa ggggtctcct agttccagat ttaatttttg ggaacagatc
3240
tgggtctctt ttaacctctt tctttctcag tctatgagaa acttgccctg aggggcacct
3300
gggctagggg cttgggactg gaagaccatc ccgccttgt gccacaactt tgggtcatggg
3360
atctgtctct tgtcattctt agccccctac tgtggcccc atagcccat aaccagaga
3420
gggagctgga cttcaggag cctgagtgat gctttcccag gagcagggca gctggctgga
3480
ccagaaagta gagggcccat gggagtgaat gcacccttgg tggctgtctg aaaggagag
3540
gttctcagca tcaggccacc tccaccccaa tgccaggata gatgtattct agagtagggg
3600
tggaggcggc ccaggaggct gaagacaggt gcacagatgc tccccagac cttgccattt
3660
ggggtgggct cttcaacatc tcaggctgtg gctggaacag gacaggatga tctaaaaac
3720
acgtaccatt ggctgtaaaa cagtatgagc ccagactgac gctgaaatcc ctcatgagcc
3780
aaccttagct acaaggtagg gagttctgag ggaagccgcy tgctcctcag gagagagctg
3840
tttaggtttt ccgatctttt tgctcagggg ccaaacactg aaggcacgta ctgcccaccc
3900
cactgagcgc ctgagcccat tccctccttt tccgcatgcc tccctgcctc tgggctattc
3960
ctctccaccc agaaggctgg gaatccagc tgattccctg acaggagccg acttcacaca
4020

cagggtgactc tcaggcattg gctcatgttt tcagccaggg ataaaccatc ccttcttggg
4080
gctttaagtc cctggggagc tttccctgta ggtctcctgg gtgttgagag acaagtgga
4140
gaccaacctc caatgaatga gccgcggtca ttcattaatt cactcagcta atttactgag
4200
tagctgcaac atgccagcct ctacgttagg ttctgcggat aaaggaggaa taagacagag
4260
tcaggagAAC tggtccttgt ggtttccgtc ccttggggac cacaggcatc agcagtcCCA
4320
ttcaagtCAC ctgaggcaaa gtgtctgcat cttcgtccag cgaccctttg cttttcggtc
4380
cctagaatcc ttagagtctg aattccttta gctgggaaca gctgtcatgg tcacccttgg
4440
ataacatttg ccaccaagta tagatgctgg atcttgggtt ccaggcagac atcatccagg
4500
tcactctgga actttcagtg atagctgcct tcagccagca tcttggggg actctataat
4560
agcagcttga gatcagtgct tagaagactg ttctgcaatt tgctgcaaaa tgcattctcag
4620
gtttttaaag tcattgtttc ttgctcatgg tggctcattt attacatagt cccctcacc
4680
cactaatgga taatgggagg aaaagtgtgt gcttcttca gcatcaaaag ctttcttgg
4740
gaatctgcct cctcccatgg cagggggtga ttccggagct gggagtaacc aggcAAAGtc
4800
aaccagatgc cttagctcctg ctgagaccca ggtcctatgg cagctcctca ttagattaaa
4860
ggagaccact tccaaagcag gtgctgcatg gctcaccatc atatgcccc aacaactgaa
4920
agtggcggt tatcaccaga ctgtgagttt ctggcaagta gcttggggaa gctgaataaa
4980
ctctaggccc agggctaacta aagacttcag gatagaattc tccatcaaat atacagcata
5040
agtAAAactg ctctgcactg ttaatccat ttccaagggg cttagaaaag ctaacaaggg
5100
tgtgtccctt gtccctcccc accggtttgc tggctttgta ataacataag accattgttg
5160
ttgttggtgt cagatacctt cccatcctga gctctctcac ctacctgctc tctctcctag
5220
agcaggatag tggggtaact ttaagaaggg tgctcctttt aagatgcccc gaaaagctgt
5280
atttaactct tgctatttgt aacttgggga tgggtctcccc tgccccaggg cacataagag
5340
caaaaggctc aatggctagt ggaatgactc gcaaaagtga cccctgtgct cagaagctat
5400
agcctctcc ccaacaggtc tctcttgttg gccagagggc ctgcttcccc tgggcattgc
5460
aagtgcaccc gtgcggggcc tggctctgca cccccaggaa aagtctgcag acccccagcc
5520
ctccgcaata attcaccaga ccagaagcca ctgggtgtaca gagaacactt aaaaaatgt
5580
attttatgtg aaaaaaatt aaaactctgt atactgtatc agcagctttg tgtaaaaatg
5640

gcaatcaaga gagtctaata tatttaaaac ttttttaaaa aaaatctctcg cggatctttg
 5700
 atatcgtagt gaggttaactt ccacgtagcc ccttgccacg cggcaccggt gggccttggg
 5760
 tccaaaactg tggctcagcc acatcccaaa ggggggcacat gtccctggag ttgcttccag
 5820
 ctgccaaggc ctgtgacaga attcgctgtt aagagttttt aattaaaatt attaaaattc
 5880
 ttttaataac aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 5940
 aaaaaa
 5945

<210> 3170
 <211> 412
 <212> PRT
 <213> Homo sapiens

<400> 3170
 Tyr Gly Ala Asp Leu Leu Ala Val Asn Ser Asp Gly Asn Met Pro Tyr
 1 5 10 15
 Asp Leu Cys Glu Asp Glu Pro Thr Leu Asp Val Ile Glu Thr Cys Met
 20 25 30
 Ala Tyr Gln Gly Ile Thr Gln Glu Lys Ile Asn Glu Met Arg Val Ala
 35 40 45
 Pro Glu Gln Gln Met Ile Ala Asp Ile His Cys Met Ile Ala Ala Gly
 50 55 60
 Gln Asp Leu Asp Trp Ile Asp Ala Gln Gly Ala Thr Leu Leu His Ile
 65 70 75 80
 Ala Gly Ala Asn Gly Tyr Leu Arg Ala Ala Glu Leu Leu Asp His
 85 90 95
 Gly Val Arg Val Asp Val Lys Asp Trp Asp Gly Trp Glu Pro Leu His
 100 105 110
 Ala Ala Ala Phe Trp Gly Gln Met Gln Met Ala Glu Leu Val Ser
 115 120 125
 His Gly Ala Ser Leu Ser Ala Arg Thr Ser Met Asp Glu Met Pro Ile
 130 135 140
 Asp Leu Cys Glu Glu Glu Glu Phe Lys Val Leu Leu Glu Leu Lys
 145 150 155 160
 His Lys His Asp Val Ile Met Lys Ser Gln Leu Arg His Lys Ser Ser
 165 170 175
 Leu Ser Arg Arg Thr Ser Ser Ala Gly Ser Arg Gly Lys Val Val Arg
 180 185 190
 Arg Ala Ser Leu Ser Asp Arg Thr Asn Leu Tyr Arg Lys Glu Tyr Glu
 195 200 205
 Gly Glu Ala Ile Leu Trp Gln Arg Ser Ala Ala Glu Asp Gln Arg Thr
 210 215 220
 Ser Thr Tyr Asn Gly Asp Ile Arg Glu Thr Arg Thr Asp Gln Glu Asn
 225 230 235 240
 Lys Asp Pro Asn Pro Arg Leu Glu Lys Pro Val Leu Leu Ser Glu Phe
 245 250 255
 Pro Thr Lys Ile Pro Arg Gly Glu Leu Asp Met Pro Val Glu Asn Gly
 260 265 270
 Leu Arg Ala Pro Val Ser Ala Tyr Gln Tyr Ala Leu Ala Asn Gly Asp

275	280	285
Val Trp Lys Val His Glu	Val Pro Asp Tyr Ser Met Ala Tyr Gly Asn	
290	295	300
Pro Gly Val Ala Asp Ala Thr	Pro Pro Trp Ser Ser Tyr Lys Glu Gln	
305	310	315
Ser Pro Gln Thr Leu Leu Glu Leu Lys	Arg Gln Arg Ala Ala Ala Lys	
325	330	335
Leu Leu Ser His Pro Phe Leu Ser Thr His Leu Gly Ser Ser Met Ala		
340	345	350
Arg Thr Gly Glu Ser Ser Ser Glu Gly Lys Ala Xaa Leu Ile Gly Gly		
355	360	365
Arg Thr Ser Pro Tyr Ser Ser Asn Gly Thr Ser Val Tyr Tyr Thr Val		
370	375	380
Thr Ser Gly Asp Pro Pro Leu Leu Lys Phe Lys Ala Pro Ile Glu Glu		
385	390	395
Met Glu Glu Lys Val His Gly Cys Cys Arg Ile Ser		
405	410	

<210> 3171

<211> 753

<212> DNA

<213> Homo sapiens

<400> 3171

gaattcttatt tattccttag tgttgactct agggccatgg aaggaaagga atgaggtacc
 60
 actcactgaa ttgggaggcg attacaattc tgttattctg atgctatttg ggacctttct
 120
 ttcccttta cagggtcaac ggactgcgtg tgttactcca ccgtgggac cagcagcgca
 180
 gaaacctcgg cgctgcatat cgttgttggg gactcgtgg ccatggatgt gtctcagtc
 240
 caccacaaca gcacactcct tcgctactcc gtgtccctgc tgggctacgg cttctacggg
 300
 gacatcatca aggacagtga gaagaaacgg tggttgggtc ttgccagata cgacttttca
 360
 ggtttaaaga ccttcctctc ccaccactgc tatgaaggga cagtgtcctt cctccctgca
 420
 caacacacgg tgggatctcc aagggatagg aagccctgcc gggcaggatg ctttgtttgc
 480
 aggcaaaagca agcagcagct ggaggaggag cagaagaaag cactgtatgg ttgtgaagct
 540
 gcggaggatg tggaggagtg gcaagtcgtc tgtgggaagt ttctggccat caatgccaca
 600
 aacatgtcct gtgcttgtcg ccggagcccc aggggectct ccccgctgc ccaactggga
 660
 gaacgggtct ctgacctcat cctcatccgg aaatgctcca ggttcaattt tctgagattt
 720
 ctcactctggc acgaagtctg caagaagcca ctt
 753

<210> 3172

<211> 228

<212> PRT

<213> Homo sapiens

<400> 3172

```

Ile Gly Arg Arg Leu Gln Phe Cys Tyr Ser Asp Ala Ile Trp Asp Leu
 1           5           10           15
Leu Phe Pro Phe Thr Gly Ser Thr Asp Cys Val Cys Tyr Ser Thr Val
      20           25           30
Gly Thr Ser Asp Ala Glu Thr Ser Ala Leu His Ile Val Val Gly Asp
 35           40           45
Ser Leu Ala Met Asp Val Ser Ser Val His His Asn Ser Thr Leu Leu
 50           55           60
Arg Tyr Ser Val Ser Leu Leu Gly Tyr Gly Phe Tyr Gly Asp Ile Ile
 65           70           75           80
Lys Asp Ser Glu Lys Lys Arg Trp Leu Gly Leu Ala Arg Tyr Asp Phe
      85           90           95
Ser Gly Leu Lys Thr Phe Leu Ser His His Cys Tyr Glu Gly Thr Val
 100          105          110
Ser Phe Leu Pro Ala Gln His Thr Val Gly Ser Pro Arg Asp Arg Lys
 115          120          125
Pro Cys Arg Ala Gly Cys Phe Val Cys Arg Gln Ser Lys Gln Gln Leu
 130          135          140
Glu Glu Glu Gln Lys Lys Ala Leu Tyr Gly Leu Glu Ala Ala Glu Asp
 145          150          155          160
Val Glu Glu Trp Gln Val Val Cys Gly Lys Phe Leu Ala Ile Asn Ala
      165          170          175
Thr Asn Met Ser Cys Ala Cys Arg Arg Ser Pro Arg Gly Leu Ser Pro
 180          185          190
Ala Ala His Leu Gly Asp Gly Ser Ser Asp Leu Ile Leu Ile Arg Lys
 195          200          205
Cys Ser Arg Phe Asn Phe Leu Arg Phe Leu Ile Trp His Glu Val Cys
 210          215          220
Lys Lys Pro Leu
225

```

<210> 3173

<211> 573

<212> DNA

<213> Homo sapiens

<400> 3173

```

nntgtacaga acaaggatgc aactgctgcc cgaagagcat ggactcgatc ttaacttcaa
60
ctgctcaggg gccccaaaaa atgactgaaa aatgactaaa aagcataata aagttgatgt
120
tatagtgaag gtttgaaggt tgaagtgact cattgtggaa caatgagacg gaaataccgt
180
gtttgtaatg taacaaggag gctgcccagt catcaaacct ttcotttaca gttagaaaac
240
ggccaaactg tggagagaac agtagcgcat tatttcagag aaaagtatac tcttcagctg
300
aagtaccgcg accttcctgt tctgcaagtc gggcaggaaac agaaacacac ctacctgccg
360
ctagaagtct gtaatatgtt ggcaggggcaa cgatgtatca agaagctaac agacaatcag
420

```

acttcacta tgatcaaggc aacagcaaga tctgcaccag atagacaaga ggaaattagc
 480
 agattggttaa gaagtgcataa ttatgaaaca gatccatttg ttcaggagtt tcaattttaaa
 540
 gttcgggatg aaatggctca tgtaactgga cgc
 573

<210> 3174

<211> 152

<212> PRT

<213> Homo sapiens

<400> 3174

Cys	Tyr	Ser	Glu	Gly	Leu	Lys	Val	Glu	Val	Thr	His	Cys	Gly	Thr	Met
1				5				10					15		
Arg	Arg	Lys	Tyr	Arg	Val	Cys	Asn	Val	Thr	Arg	Arg	Pro	Ala	Ser	His
		20					25						30		
Gln	Thr	Phe	Pro	Leu	Gln	Leu	Glu	Asn	Gly	Gln	Thr	Val	Glu	Arg	Thr
		35				40						45			
Val	Ala	Gln	Tyr	Phe	Arg	Glu	Lys	Tyr	Thr	Leu	Gln	Leu	Lys	Tyr	Pro
		50				55				60					
His	Leu	Pro	Cys	Leu	Gln	Val	Gly	Gln	Glu	Gln	Lys	His	Thr	Tyr	Leu
		65			70				75				80		
Pro	Leu	Glu	Val	Cys	Asn	Ile	Val	Ala	Gly	Gln	Arg	Cys	Ile	Lys	Lys
			85						90				95		
Leu	Thr	Asp	Asn	Gln	Thr	Ser	Thr	Met	Ile	Lys	Ala	Thr	Ala	Arg	Ser
			100					105					110		
Ala	Pro	Asp	Arg	Gln	Glu	Glu	Ile	Ser	Arg	Leu	Val	Arg	Ser	Ala	Asn
		115					120						125		
Tyr	Glu	Thr	Asp	Pro	Phe	Val	Gln	Glu	Phe	Gln	Phe	Lys	Val	Arg	Asp
		130				135						140			
Glu	Met	Ala	His	Val	Thr	Gly	Arg								
145						150									

<210> 3175

<211> 948

<212> DNA

<213> Homo sapiens

<400> 3175

nnccccctc tcttctctac ggcagaaact acaacttcag ggttttccca acggcctctt
 60
 ttgtcacgtt aggagaaact acatttccca taatcctttg ttccagggtc ggagcgggtc
 120
 tgggctccgg aatcgccgcg agccggtact gcgggaccca ctgcggatat ggctgtcttg
 180
 gctggatccc tgttgggccc cagcagtagg tcggcagcgt tgcctgggtgg cagggtggctc
 240
 cagccccggg cctgggtggg gtteccagac gcctgggggc tccccacccc gcagcaggcc
 300
 cggggcgaagg ctccgaggaa tgagtatcag ccgagcaaca tcaaacgcaa gaacaagcac
 360
 ggctgggtcc ggccgctgag cagccgggcc ggctgtcagg tcatccttcg cogaatgtctc
 420

aaggcgccgca agtcgctgag ccattgagga tcgcgacgca gtccgcccga cccctcatgga
 480
 agcatcgccc tcgcctcgga ccttgccctgg cgctattttt gcagggagct ggggagcagg
 540
 aacgcctcgg acctgagtgc tctccatatt gtggggttga agtctggatg ggagcttgcc
 600
 aagtcctctt ttaggctttt taattaggaa gcatttcgaa cctgcgcaac agacaaaaga
 660
 acagtacaaa gaacatccgt gtaccagta cctgactac cgactaccta caaccogtcc
 720
 ctgccccatc ctgagttctt ttgaagctga tctcaggcat cggattattt cttctgtaaa
 780
 tatttcagaa tgtatctctc caagatgaga gctcattaaa agataattac aaagcttacc
 840
 acatccaaaa gaattatcaa taattttgaa atattattaa acgtgtaata aatgttcaaa
 900
 gttccacttg caaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaa
 948

<210> 3176

<211> 92

<212> PRT

<213> Homo sapiens

<400> 3176

Met	Ala	Val	Leu	Ala	Gly	Ser	Leu	Leu	Gly	Pro	Thr	Ser	Arg	Ser	Ala
1				5					10				15		
Ala	Leu	Leu	Gly	Gly	Arg	Trp	Leu	Gln	Pro	Arg	Ala	Trp	Leu	Gly	Phe
			20				25						30		
Pro	Asp	Ala	Trp	Gly	Leu	Pro	Thr	Pro	Gln	Gln	Ala	Arg	Gly	Lys	Ala
			35				40						45		
Arg	Gly	Asn	Glu	Tyr	Gln	Pro	Ser	Asn	Ile	Lys	Arg	Lys	Asn	Lys	His
			50				55						60		
Gly	Trp	Val	Arg	Arg	Leu	Ser	Thr	Pro	Ala	Gly	Val	Gln	Val	Ile	Leu
65					70						75			80	
Arg	Arg	Met	Leu	Lys	Gly	Arg	Lys	Ser	Leu	Ser	His				
					85						90				

<210> 3177

<211> 1857

<212> DNA

<213> Homo sapiens

<400> 3177

nggatccagg acatcgaggg agccagcgcc aaggaccttt gcagcgcgtc ttccggttggtg
 60
 tccccgtctt ttgtaccaac aggggagaag ccatgtgagc aagtcacgtt ccagcccaac
 120
 acagtgaaca ctttgccctg cccgctcttc tccaacctgg cgaccocagt ctggctacgc
 180
 aacggggccc ccgtcaatgc ctcggcctcc tgccacgtgc taccactgg ggacctgctg
 240
 ctggagggca cccaacagct gggggagtgc cagtgtcggg cactagagga gggcttcacg
 300

cagctggttag ccagctactg cccagagggtg gtggaggacg ggggtggcaga ccaaacagat
360
gaggggtggca gtgtaccctg cattatcagc acatcgctg tgagtgcacc agctgggtggc
420
aaggccagct ggggtgcaga caggctctac tggaaggagt tcctgggtgat gtgcacgctc
480
tttgtgtggt cgtgtgtgt cccagtttta ttctgtctct accggcaccg gaacagcatg
540
aaagtcttcc tgaagcaggg ggaatgtgcc agcgtgcacc ccaagacctg ccctgtgggtg
600
ctgccccctg agaccggccc actcaacggc ctaggggccc ctagcaccct gctcgatcac
660
cgagggtacc agtccctgtc agacagcccc cggggggccc gagtcttcac tgagtcagag
720
aagagggcac tcagcatcca agacagcttc gtggagggtat cccagtggtg cccccggccc
780
cgggtccgcc ttggctcgga gatccgtgac tctgtgggtg gagagctgac ttccagagga
840
cgctgccccg gcttcagggg ctgtgaatgc tcggagaggg tcaactggac ctccccctcg
900
ctctgtctct cgtgggaacac gaccgtgggt cccggccctt gggagccttg gagccagctg
960
gctctgtctc ctccagtcaa gttagcgaagc tctaccacc cagacacca aacagccgtg
1020
gccccagagg tcctggccaa atatgggggc ctgcctaggt tgggtgaaca gtgctcctta
1080
tgtaaactga gccctttgtt tagaaaacaa ttccaaatgt gaaactagaa tgagagggaa
1140
gagatagcat ggcacgcagc acacacgggt gctccagttc atggcctccc aggggtgctg
1200
gggatgcac ccaagtgtt gtctgagaca gagttggaaa ccctcaccaa ctggcctctt
1260
caccttccac attatccgc tgcaccggc tgccctgtct cactgcagat tcaggaccag
1320
cttgggtgc gtgcgttctg ccttgccagt cagccagga ttagttgtt gctgcgtgc
1380
tccccacc tcagggaacca gagggctagg ttggcactgc ggccctcacc aggtcctggg
1440
ctcggaacca actcctggac ctttcagcc tgtatcaggc tgtggccaca cgagaggaca
1500
gcgcgagctc aggagagatt tcgtgacaat gtacgccttt ccctcagaat tcagggaaga
1560
gactctgccc tgccttccct cgttgttgct tgagaacccg tgtgcccctt cccaccatat
1620
ccacctgcg tccatctttg aactcaaaac cgaggaaact actgcacctt ggtcctctcc
1680
ccagtcacca gttaccctc catccctcac ctctctccac tctaagggat atcaacactg
1740
cccagcacag gggccctgaa tttatgtggt ttttatacat ttttaataa gatgcacttt
1800
atgtcatttt ttaataaaat ctgaagaatt actgttttaa aaaaaaaaaa aagtttt
1857

<210> 3178

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3178

```

Xaa Ile Gln Asp Ile Glu Gly Ala Ser Ala Lys Asp Leu Cys Ser Ala
 1           5           10           15
Ser Ser Val Val Ser Pro Ser Phe Val Pro Thr Gly Glu Lys Pro Cys
 20           25           30
Glu Gln Val Gln Phe Gln Pro Asn Thr Val Asn Thr Leu Ala Cys Pro
 35           40           45
Leu Leu Ser Asn Leu Ala Thr Arg Leu Trp Leu Arg Asn Gly Ala Pro
 50           55           60
Val Asn Ala Ser Ala Ser Cys His Val Leu Pro Thr Gly Asp Leu Leu
 65           70           75           80
Leu Val Gly Thr Gln Gln Leu Gly Glu Phe Gln Cys Trp Ser Leu Glu
 85           90           95
Glu Gly Phe Gln Gln Leu Val Ala Ser Tyr Cys Pro Glu Val Val Glu
100           105           110
Asp Gly Val Ala Asp Gln Thr Asp Glu Gly Gly Ser Val Pro Val Ile
115           120           125
Ile Ser Thr Ser Arg Val Ser Ala Pro Ala Gly Gly Lys Ala Ser Trp
130           135           140
Gly Ala Asp Arg Ser Tyr Trp Lys Glu Phe Leu Val Met Cys Thr Leu
145           150           155           160
Phe Val Leu Ala Val Leu Leu Pro Val Leu Phe Leu Leu Tyr Arg His
165           170           175
Arg Asn Ser Met Lys Val Phe Leu Lys Gln Gly Glu Cys Ala Ser Val
180           185           190
His Pro Lys Thr Cys Pro Val Val Leu Pro Pro Glu Thr Arg Pro Leu
195           200           205
Asn Gly Leu Gly Pro Pro Ser Thr Pro Leu Asp His Arg Gly Tyr Gln
210           215           220
Ser Leu Ser Asp Ser Pro Pro Gly Ala Arg Val Phe Thr Glu Ser Glu
225           230           235           240
Lys Arg Pro Leu Ser Ile Gln Asp Ser Phe Val Glu Val Ser Pro Val
245           250           255
Cys Pro Arg Pro Arg Val Arg Leu Gly Ser Glu Ile Arg Asp Ser Val
260           265           270
Val

```

<210> 3179

<211> 3447

<212> DNA

<213> Homo sapiens

<400> 3179

```

tttttttttt tttttttttt tttttttttt tttttttttt tttttttttg tctgttaaac
60
tggttaaatga atgcataaaa aggcagaaaa atatataaag ccaaaagctc ataataaaat
120
taaatcatga tacaaccacc acaggcaatt accatcaaat acattcccat gatttacaaa
180

```

tgtatcgctt atacagagga agttgcaaaa tcaactgccag tacagacaca tccagcttaa
240
ttaactatcg tctattcata caacagcaac aactgcagct cctgagacca cagaaggaca
300
cagtgagcag ctggtgactg agccagggtg gcctccgcat aataactgat cagagtaatg
360
agacttcgag aggaatgcct ataagaaatc tcaaaaggtg tttgtttggg tgcagaaaca
420
aatgcacct ccacatttgg attttctcta gaagaatctg tggccaaatc tcttatccaa
480
tggaggctact gagtggctgg atcagttacc atgcaagctc acgatgaatg agatgaatt
540
tgggtctgtg tgcacactgg gctctgggga gggaggacac ccctgtgtgt tgctgtgcc
600
ttccgtgctg tctactgtat ccttcatgtg tctccaaatg gtacacgccc catgggatta
660
cagaacacag ctacagaatt aggatctcat ggttaacaatg aggaattagg ttactgtaga
720
actaaaaatg gttaaatgaa attaaaaatg aatggaaaaa aaatcaggca acagaacatt
780
ctgatgaatt tacaggactg attatatccc acggcactga atgacaaaca gttcttctcc
840
atacagtcgc aattagaggc atagaagtca tactgaatgc tgaatagaag aacactgaga
900
agagcagggt ataaatgaag gttttcacat aaaacagaaa aatagacaaa atcatcggtg
960
agaagctagc tttcgaaaac ctcccataaa gtacacggca cggagaagtg gggactggg
1020
atgtcctggc tgctttctgc tttgggaact atccaagtgg cacatacca tgcacagctt
1080
aggtgtcttg tgaaacctta cttctccac ataaaaagga aggaacggtt tccaaagcta
1140
atgtttccag gctctgcctc gtgacactca agtggcctca gatatgagca ctggcacaga
1200
gtgatgctgg agaggtcact tagagagaag ctgccgggcc aagcacacga caatcttggc
1260
cctaagtgtc caccatttcc tcatgtgacc ctgacattcc ggggaactgg gaaacctgtt
1320
ccttaaaaggc aacaacagtc ctttctttcc tctcacaaca aaggagcatg ttctcctgta
1380
atgcactttt catttacggc tctcaaaaga atatgccttc tcaaggaaat ttaaatgcac
1440
ttttcttgaa tgtcagctcc cagcaacaca agcatgggtg ttgttagggc attcccgggc
1500
tcggggggcg ccgctccaac atgtggtacc agcggccatg tgcctcaag gggaggagg
1560
aagagcacag gaggggtggg gagggacaaa cagccctttt tatagggtca tgggggggct
1620
ccactcagag tctggcagga atctgccagg aaaaacctgt tctagatagg gagaagcaga
1680
actgtgtgtg gggcaggcgg ccgtggctct gagagacagg gcccgggcct tccactgtct
1740
gtttgcacac ctcttcggcc tatcccaagg accttcttag catataaaaa caggggctct
1800

cctgatttgc aaacagaaca acaaatataaa ataaaaacaa aacccaaaat tcctccatgg
1860
cagcccaccc aatgaatacc ccagattttt agggccattg cgggtctgta gctgggtgta
1920
gagagagtta agcttttcac tcacctgttt acaacacttt gtgataaaat agtgagtgg
1980
agcaatcaca tccccactgc gtgcgtcccc ccgggatgac tcacagctgc tctgtgatca
2040
cacgtgcaaa tgttattatt attatttttt gcctttggca tcaagggca agcctgttca
2100
ttaaaaaatc ttctatatcc aacactccat agtgaagaaga atggatactt caaaattcct
2160
aaagcaatca tgtgaaaatt atttttattt ttaaaatttt tgaaagtgtt ttgattttta
2220
tgggtccttg ataattggcc agccctgttt tgcaagaga tggactattt ctgagactag
2280
aatgtttttt ttgaaaatat tgaagagatg aagagattta agacaataaa ggctgtaata
2340
ttaccataaa ggaagaaaaa catctatgtg tgtcaatatt gttttgagat aaagtcacaa
2400
tgattgatata caatgctttc accattttat ttcaacttaa accagtgtca ctcacatgaa
2460
gcttattttta taatacatat tatccagtga ttctatcttt tctgcacagt ttaagtacat
2520
tttttttttc tgtacctga agtaagcaga atagtccaag ctttcaaaac tgggtgatgt
2580
gtatgcgtga gggatgctta cataatagca acgctttatt gggcaacccg aatccataca
2640
tgtctgggtg ggtttgatag ctgggcttga aaaagtgcct ccagttgaaa ttagcattag
2700
aaatcgggta gaacaccaac atttcagggg gagggaggac tgctacaaag gaaaagaaca
2760
tgtctacaaa tgcactgaaa gaactagcca gaatatgaat tccattagta tctaagacac
2820
acaaaatgtc atttacaaat aagtcacggc aagtgtcaca acctgaaatc tcaactcaga
2880
cagatggtag agatgttaac agttgcctga aacttcgatg tgctttcacg cccacaggaa
2940
aggtaaaact gacattttgt tttctcttca acaatttcac gatcaataaa gaattgcagt
3000
tggagactaa agcaaatctt agaaaactct taactccaag ttgccctatg gtttttatga
3060
ttgcattgta tcagaatgag gcgctctgtt ccacacttta ttcaaaagcc ttttacgctc
3120
ccacaaggcc ttctggaatt ccagaatcag ccctgcacac aggcagaaaa acagcttcac
3180
cttacagggt gtgtgagaac acccaataaa ctagggaactt ttttgggaaa aacttcttcc
3240
cttccaaaat tacacaacca ccaaacactc taaacatcac gtaaaatact gcatctgcaa
3300
cttgaatggc actcagggac cagcgttttg atgaaccagc agccacagggt tctccactga
3360
caatcaactg cagaaacacc tcttagactc tggaccccat agcagagttt tttttttttg
3420

gttatactttt tttttccact tttgett
3447

<210> 3180

<211> 127

<212> PRT

<213> Homo sapiens

<400> 3180

Met	Ser	Phe	Thr	Asn	Lys	Ser	Arg	Gln	Val	Ser	Gln	Pro	Glu	Ile	Ser
1				5					10					15	
Thr	Gln	Thr	Asp	Gly	Arg	Asp	Val	Asn	Ser	Cys	Leu	Lys	Leu	Arg	Cys
			20					25					30		
Ala	Phe	Thr	Pro	Thr	Gly	Lys	Val	Lys	Leu	Thr	Phe	Val	Phe	Leu	Phe
			35				40						45		
Asn	Asn	Phe	Met	Ile	Asn	Lys	Glu	Leu	Gln	Leu	Glu	Thr	Lys	Ala	Asn
			50			55					60				
Ser	Arg	Asn	Ser	Leu	Thr	Pro	Ser	Cys	Pro	Met	Val	Phe	Met	Ile	Ala
65				70					75					80	
Cys	Tyr	Gln	Asn	Glu	Ala	Leu	Cys	Ser	Thr	Leu	Tyr	Ser	Lys	Ala	Phe
			85						90				95		
Tyr	Ala	Pro	Thr	Arg	Pro	Ser	Gly	Ile	Pro	Glu	Ser	Ala	Leu	His	Thr
			100					105					110		
Gly	Arg	Lys	Thr	Ala	Ser	Ser	Tyr	Arg	Leu	Cys	Glu	Asn	Thr	Gln	
			115					120					125		

<210> 3181

<211> 287

<212> DNA

<213> Homo sapiens

<400> 3181

natggcttcc tccccggcgg tggacgtgtc ctgcaggcgg cggggagaac ggcggcagct
60
ggacgcgcgc cgcaacaagt gccgcattcg cctgggcggg cacatgaagc aggggggcct
120
cctcaaggac ggctgggctt ctccctgcac tcgcagctcg ccaagttcct gttggaccgg
180
tacctttctt caggtctgtg cctctgtgca ggtcctgagc ttttgcctcc aaaaggtctg
240
cagtatctgg tgctcttctg tcattgcccc caccggagat gcacctt
287

<210> 3182

<211> 95

<212> PRT

<213> Homo sapiens

<400> 3182

Met	Ala	Ser	Ser	Pro	Ala	Val	Asp	Val	Ser	Cys	Arg	Arg	Arg	Gly	Glu
1				5					10					15	
Arg	Arg	Gln	Leu	Asp	Ala	Arg	Arg	Asn	Lys	Cys	Arg	Ile	Arg	Leu	Gly
			20					25					30		
Gly	His	Met	Lys	Gln	Gly	Gly	Leu	Leu	Lys	Asp	Gly	Trp	Ala	Ser	Pro